FIRE ENGINEERING

A Consolidation of
FIRE AND WATER ENGINEERING *and* THE FIRE ENGINEER

FEBRUARY 10, 1926

EUREKA *means* Fire Hose Dependability

Wherever firefighters gather you will hear nothing but good words for Eureka Fire Hose.

Unfailing dependability — exceptional service — and standard quality have established the fame of Paragon and the other famous brands of Eureka manufacture on fire lines from coast to coast.

Standardize on Eureka — it stays on the job 'till the job is done!

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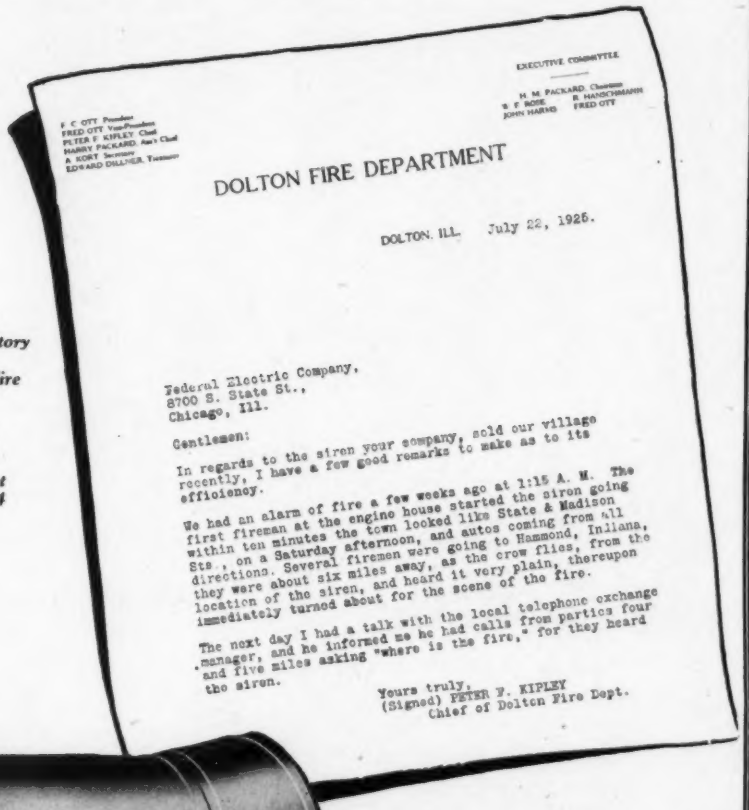
THE "Experiences of our Noted Fire Chiefs" which have been appearing in Fire Engineer for the past year under the heading "The Hardest Fire I Ever Fought" have attracted nation-wide attention.

In response to numerous requests we have incorporated them in an interesting book which will be given any fire chief, or his assistants, for the mere asking. Send for your copy today.

THE B. F. GOODRICH RUBBER COMPANY
Established 1870 Akron, Ohio

Goodrich
FIRE HOSE

"Heard 6 miles at 1.15 A.M."



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DOLTON FIRE DEPARTMENT

DOLTON, ILL. July 22, 1926.

Federal Electric Company,
8700 S. State St.,
Chicago, Ill.

Gentlemen:

In regards to the siren your company, sold our village recently, I have a few good remarks to make as to its efficiency.

We had an alarm of fire a few weeks ago at 1:15 A. M. The first fireman at the engine house started the siren going within ten minutes the town looked like State & Madison Sts., on a Saturday afternoon, and autos coming from all directions. Several firemen were going to Hammond, Indiana, they were about six miles away, as the crow flies, from the location of the siren, and heard it very plain, thereupon immediately turned about for the scene of the fire.

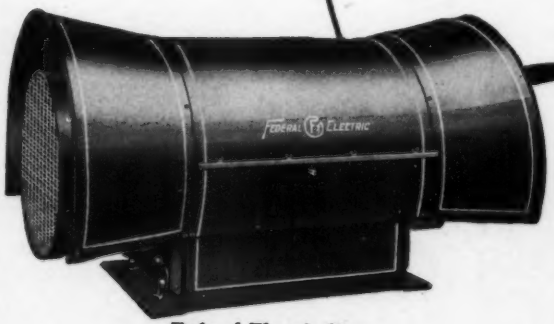
The next day I had a talk with the local telephone exchange manager, and he informed me he had calls from parties four and five miles asking "where is the fire," for they heard the siren.

Yours truly,
(Signed) PETER F. KIPLEY
Chief of Dolton Fire Dept.

Approved by the Underwriters' Laboratory of the National Board of Fire Underwriters

Approval dated October 11, 1918

Code control patent allowed April, 1924



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It gets instant attention day or night—always heard—always recognized. Its weird cry gets your men on the job quickly, when seconds count—pays for itself many times in keeping down fire loss and insurance rates.

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FEDERAL ELECTRIC COMPANY, 8700 South State Street, Chicago, Illinois

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Name ..... *Official Position* .....

Street and Number ..... *City* ..... *State* .....

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Our Current Specification ..... *Volts* ..... *Cycles* ..... *Phase. Make of Box* .....

FE-2

The Journal of the Fire Protection Profession Since 1877

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FIRE ENGINEERING

A Consolidation of FIRE AND WATER ENGINEERING and THE FIRE ENGINEER

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BONUS CLERK: "How much service did you have?

¶ EX-SOLDIER: "None. I was a private and had to wait on myself!"

¶ That's true of most of us, whether in the army or out. It is true of readers of FIRE ENGINEERING. You have to wait on yourself to get the best out of the magazine.

¶ Read not only the news and the editorial articles, but the advertisements as well. Often the advertising pages are as interesting and as important in their announcements as any of the rest of the magazine.

A Free Service

¶ Note that we are glad to forward your inquiries to the various manufacturers for you whenever you are interested in the purchase of new apparatus or equipment. Let us hear from you when you are interested. *We'll wait on you—but it's up to you, first, to make your wants known to us.*

The Publishers

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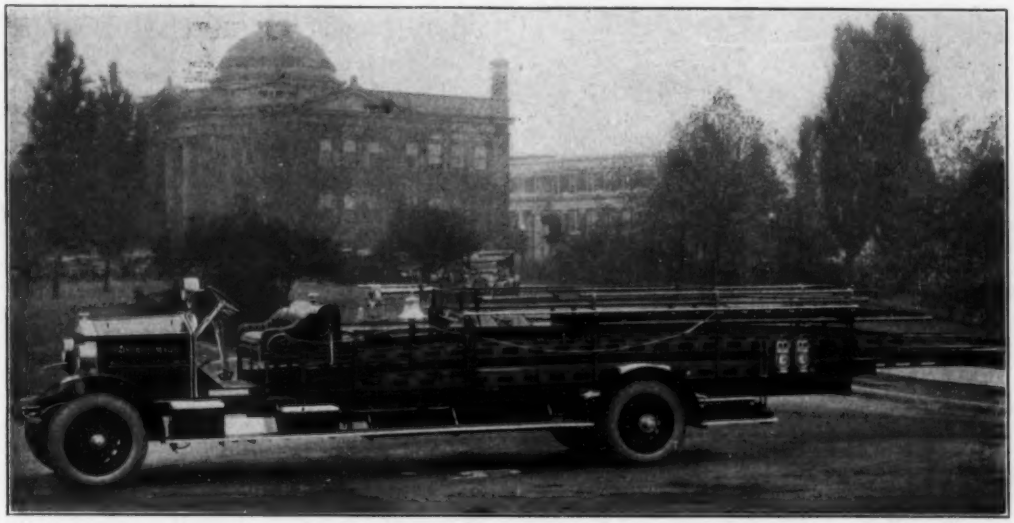

Ahrens-Fox Ladder Trucks

Embody the Latest Improvements in Modern Fire Apparatus Construction

BEFORE you decide on new city service or Aerial Ladder Truck equipment for your department, you should in fairness to yourself and to your city get all the facts about Ahrens-Fox apparatus.

Just consider a few of the features of the above pictured Double Bank City Service Truck protecting life and property at Braintree, Mass. Powered with a specially designed and constructed Ahrens-Fox fire apparatus motor. Heat treated pressed steel frame. Double reduction shaft drive (rear axle). Top ladder level with driver's seat. Side step extended in the rear.

For a combination of efficiency, compactness, convenience and completeness—plus guaranteed serviceability—we believe it impossible to beat this typically superior Ahrens-Fox job.

It was Ahrens-Fox apparatus that years ago made famous the slogan: "Nothing is too good for fire service, and nothing but the best will do." Nothing but the best is good enough for your department, and if you haven't on file all the latest Ahrens-Fox literature, we suggest that you drop us a line at once.

"Nothing is too good for fire service,
and nothing but the best will do."—Ahrens-Fox

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"Builders of Quality Fire Apparatus"

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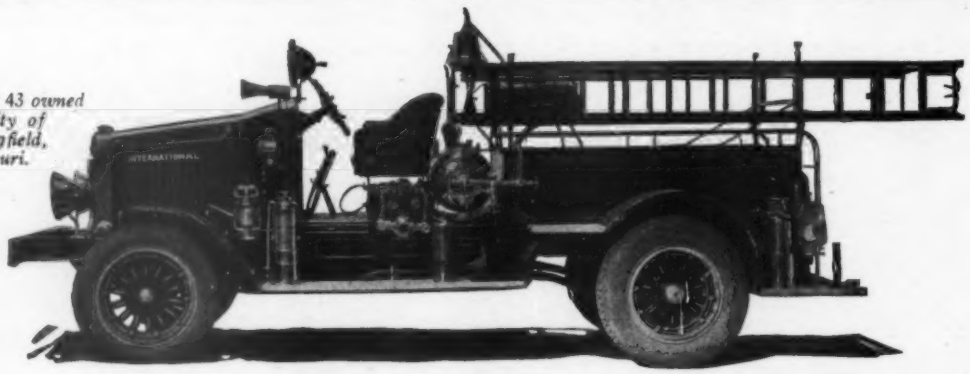


Model 43 owned by City of Springfield, Missouri.

Are You Proud of Your Fire Trucks?

International Fire Trucks make a good impression when they race down the streets of your city. They are pleasing in design, sufficiently fast, and are extremely dependable and economical. They carry their fire-fighting equipment ably and do their duty instantly when called upon.

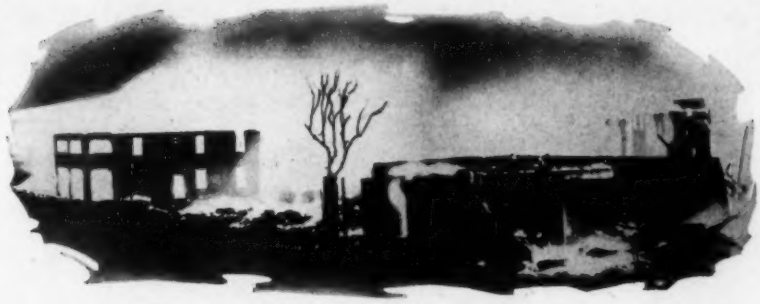
The purchase of a fire truck represents a serious investment—in a great many of the smaller municipalities, in fact, the heaviest investment made for a single piece of equipment. And that purchase deserves great consideration. It's not enough to lift the hood and like the color. You expect a fire truck to render a lot of service and last a long time. You should expect as much of its maker. You can be sure of the truck you buy if you are sure of its maker. International Trucks have been made for twenty years by a company whose manufacturing experience goes back almost a hundred.

International Heavy Duty Trucks are built in 3000, 4000, 6000 and 10,000 pound maximum capacities with bodies to meet every requirement. There is also a sturdy Speed Truck for loads up to 2000 pounds.

INTERNATIONAL HARVESTER COMPANY
OF AMERICA (Incorporated)
606 SO. MICHIGAN AVE. CHICAGO, ILL.

The International Model SL (chassis shown below) is particularly well suited to fire truck requirements. It is a long, low, underslung truck—fast, yet of rugged construction.

INTERNATIONAL
Harvester Trucks



Will this be the result of a oil fire in your community?

More oil · · worse fires

—which means that municipal protection now demands more than water or liquid chemical equipment

EVERY modern fire-fighter can see the growing hazard of oil-burning furnaces, in homes—factories—buildings of all kinds.

The Chief who has to fight oil fires with old-fashioned equipment needs no "alibi" for failure. As well try to put out an ordinary fire with oil, as to fight an oil fire with water or liquid chemicals!

Over 600 Fire Departments are solving this problem by the use of *Foamite* equipment. Repeated success has proved that genuine Firefoam will quickly control and extinguish fires of inflammable liquids—as well as ordinary fires.

Firefoam floats on liquids—clings to any surface—shuts out oxygen and smothers flame. Its "insulating" power enables the fire-fighter to quickly approach the heart of the fire. And Firefoam causes little or no damage to property. After putting out the fire it dries and may be brushed or washed away.

* * *

The Foamite 2½-gallon Hand Extinguisher—rapidly becoming standard Fire Department equipment—throws out nearly 20 gallons of Firefoam. For controlling larger fires, many Departments are also equipping apparatus with 40-gallon *Foamite* chemical tanks in place of the familiar but less effective Soda-acid tanks.

Write for specifications and prices. We will also send you catalog of the complete new line of *Childs* Heavy-Duty Motor Equipment—built for the hardest kind of service, yet within reach of any municipal budget.

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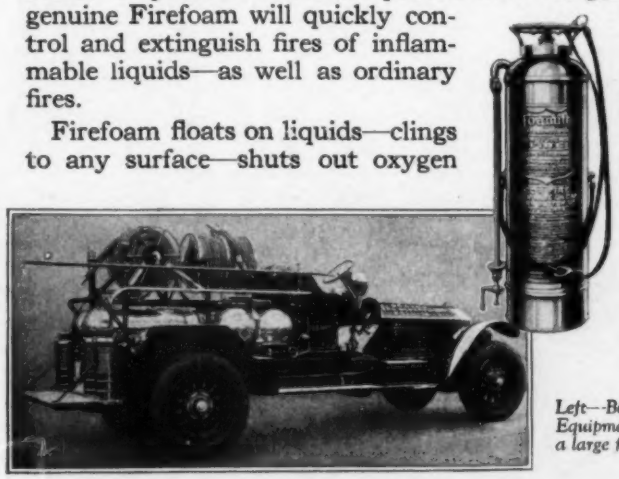
Fire Protection Engineers and Manufacturers
134 Turner Street, Utica, N.Y.
Sales and Engineering Representatives in all leading cities



The Foamite 2½-gallon *Splash-proof Extinguisher is rapidly becoming standard equipment for controlling any type of incipient fire.*

Left—Boston's new Foamite *Chemical Equipment, which recently extinguished a large fire of gasoline, oil and grease in less than 2 minutes.*

Foamite-Childs Protection

A Complete Engineering Service

Against Fire

This is the part of the Everett Oil fire AMDYCO Foam was credited with putting out completely in just *two minutes!*

THE BOSTON GLOBE—WEDNESDAY, JANUARY 20, 1926

EVERETT FIRE BURNS 10 HOURS

Oil Plant Blaze Fought With Chemicals

District Terrorized When Gas Agitator Tanks Ignite

Flames Are Smothered by Foam-Making Device

EVERETT, Jan 19—After blazing from 6 o'clock this morning, defying the efforts of firemen of half-a-dozen cities, and terrorizing an entire neighborhood, the fire in the gas agitator tanks of the Beacon Oil Company finally was extinguished about 4 o'clock this afternoon.

The fight was marked by the appearance of a new fire extinguisher, which put the finishing touches to the blaze. The new appliance, which is exclusively for fighting gasoline and oil fires, operates on the same principle as other foam-making machines, but is much more mobile and easy to operate.

The firemen held the new appliance in reserve until the flames were well under control and almost subdued. Then it was turned on, and quenched the flames in two minutes. Alfred C. Whiting was in charge of the operation.

The loss could not be estimated last evening, but the damage was not thought to have been great, as the fire was confined to three gas agitator tanks. The cause of the blaze is not known.

The plant is located on Beacham st, South Everett. An alarm was sounded from Box 34, and two from Box 36, about 6 a m. Huge clouds of smoke began to rise from a gas agitator in the middle of the plant. The intense heat and possible danger of an explosion at any minute caused persons to start to move their household furnishings from their homes, and semblance of panic existed.

Two engines from Chelsea, one from Boston and one from Malden responded to Chief Philip E. Ham's call for help. In fear that an explosion would take place, the firemen directed several streams of chemicals into the heart of the flaming tanks, and threw a water screen around the others to keep them from becoming overheated and exploding.

Flames leaped high in the air and set fire to a small wooden structure between the first agitator tank and the second. Chief Ham ordered out his entire department. For more than four hours the flames raged, throwing off a huge cloude of smoke which darkened the district. Then the battle of chemicals began to have its effect and the flames began to die down.

Fire Spreads

During this time the plant firemen were using a foam device, operating on the same principle as that which ultimately put an end to the blaze. This device consisted of two tanks with different chemicals, which combined at a nozzle and were expelled in the form of foam. The device was helpful, but did not succeed in quick extinction of the flames.

After hours of fighting, the flames had been confined to one agitator and the blaze was beginning to die down. Out-of-town apparatus was returning to home stations when, in some unexplained manner, a spark jumped to a second agitator, which ignited and fired up. Gas in the third agitator exploded with a dull boom.

The flames and smoke attracted new thousands, and firemen were driven back by the heat. Chief Ham ordered a recall of the apparatus, and Engines 32, 36 and 26 of Boston responded. These crews, with the Everett firemen, formed a water screen across the oil tanks, and laid chemical lines to the agitators. Seams on the agitator tanks broke open under the heat and pressure, and were opened further to assist the firemen.

Oil supply valves were shut, and a hurry call for all available tank wagons was sent to the Boston office of the company. When the wagons arrived, several tanks of gasoline were emptied into them and taken to safety. The burning agitators were only a short distance from the gasoline tanks and serious trouble was feared on that score.

Extinguishers Arrive

A supply of the new extinguishers had been ordered for the Beacon plant, and when the fire assumed menacing proportions, plant officials inquired as to the whereabouts of the new devices. It was found that they had been shipped to the Boston & Maine yards, but not yet delivered. Mr Whiting started for the yards about 11 o'clock with a crew. After many difficulties, the extinguishers were collected and assembled and at the plant at 1:30.

The job of connecting them up and placing them took half an hour, everything being new, and at 4 o'clock the hose streams were turned on through the tanks.

The new appliance is a simple machine, consisting of a funnel on top of a big can, known as a geuerator. Five-pound cans of dry powder were emptied into the funnel, and a regular Fire Department hose line was fastened to the can.

The two mixed in the generator, and a stream of foam shot out of a nozzle in the bottom of the can. The foam settled over the flames and smothered them in two minutes. The initial work-out of the new device was declared to be a tremendous success.

Walter Ferrelli, superintendent of the plant, sustained slight burns about both legs, while aiding in fighting the flames. His clothing became ignited by the intense heat, and only by jumping into a small pond of water nearby was he able to save himself from being severely burned. Several other persons were forced to jump into the pond. Chief Sennott of Boston was an interested spectator at the fire.

AMDYCO

AMDYCO

AMDYCO

It Took Amdyco Foam

to put the finish to this threatening oil fire at Everett, Mass.,—once more proving the superiority of the new

AMDYCO
FOAM POWDER

Used with the new Amdyco

FOAM GENERATOR

"Better Foam in Better Form"

Rushed to the scene, after five fire departments had battled this stubborn fire 10 hours, an Amdyco Foam Generator with a supply of Amdyco Foam Powder produced a foam stream which, *in just two minutes,* put out the raging fire in one of the large oil agitators.

This performance once again demonstrated the practical effectiveness of the Amdyco method under the hardest kind of fire fighting conditions.

It showed clearly the absolute necessity and importance of having available at oil fires the continuous and large volume flow of foam possible only with the Amdyco Foam Generator and Amdyco Foam Powder.

With the Amdyco equipment you are not so likely to run out of foam just when you need it most, and you don't have to bother mixing two chemical solutions.

All there is to do is attach the portable Amdyco generator to an ordinary hose stream, (just like making a siamese connection) feed Amdyco Foam Powder into the hopper, and the flowing water mixes the best foam stream you can possibly get. It is surprisingly easy to operate—nothing to get out of order. And the cost, too, is less than you probably think.

Write for complete descriptive literature. We'll gladly send it to interested fire officials.

AMDYCO CORPORATION

100 East 42nd Street : New York City

Above is the new Amdyco Foam Generator, the same outfit that did such great work at the Everett fire.

And this shows how easily the Generator can be carried around. With all attachments it weighs less than 150 lbs.

How Amdyco powder is fed into the Generator. Water comes in one line, mixes with the powder, and goes out the other line as a foam stream.

"A Little Journey through the GAMEWELL Factory"

(Illustration of entrance to Gamewell Factory)

The latchstring is always out!

Every now and then we have the pleasure of entertaining some Fire Chief, Superintendent of Fire Alarm or other city officials at our factory. It gives them a chance to tell us of the conditions which our apparatus must meet in the field. It gives us an opportunity to show them how we make Gamewell Apparatus.

Each man is especially interested in a different part of the factory. Some have a keen interest in the Engineering Department. Others linger by the screw machines, the planers or the small bench lathes. Still others are fascinated by the switchboard room, the assembling of boxes, registers, time stamps and similar instruments. Now and then men come who are as much interested in the Stock Room or the Museum as in any other part of the factory.

In every case these gentlemen go away with a new conception of our apparatus. It is not possible to have all of you gentlemen as our guests—much as we should like to do so. We plan, therefore, to bring the factory to you—through the pages of this magazine—and to show some of the various steps in the manufacture of Gamewell Apparatus that has held the interest of those who have visited us. Once a month on this page you will find a short story—and we hope an interesting story—of one of our departments.

$500.00 Firemen's Relief Contest. Remember, there is a chance for you to make $250.00 or $500.00 for your Firemen's Relief Fund. If you have not seen the details write for bulletin.

The Gamewell Company,
Newton Upper Falls, Mass.

"A BOX A BLOCK"

FIRE ENGINEERING

(A Consolidation of FIRE AND WATER ENGINEERING and THE FIRE ENGINEER)

The Leading Journal of the Fire Protection Profession

VOLUME LXXIX FEBRUARY 10, 1926 NUMBER 3

Regulating Traffic to Speed Up Apparatus

Congested Streets and What They Mean to Apparatus in Responding to Fire Alarms — The Menace of the Parked Car

By HARRY BELKNAP, Boston, Mass.

TRAFFIC regulation and the question of the parked car are problems which every chief must consider. The following article, besides telling interestingly how this matter is approched in Boston, will be found to contain some excellent suggestions on the general traffic subject of great value to fire chiefs:

The problem of traffic congestion in streets is a vital one as it affects the response of apparatus to alarms of fire. The menace of automobiles parked in streets is another serious matter that calls for attention because these cars are often a hindrance to the raising of ladders and other department operations at fires.

In Boston, Mass., conditions have for years been growing from bad to worse as they have in most other cities of the country. The large increase in the numbers of automobiles is largely responsible for the exisiting hazard.

Deputy Chief Albert J. Caulfield, of the Boston Fire Department, was assigned to make a study of the problem and he made many recommendations which have been adopted with satisfactory results.

Civilian Traffic Chief Appointed

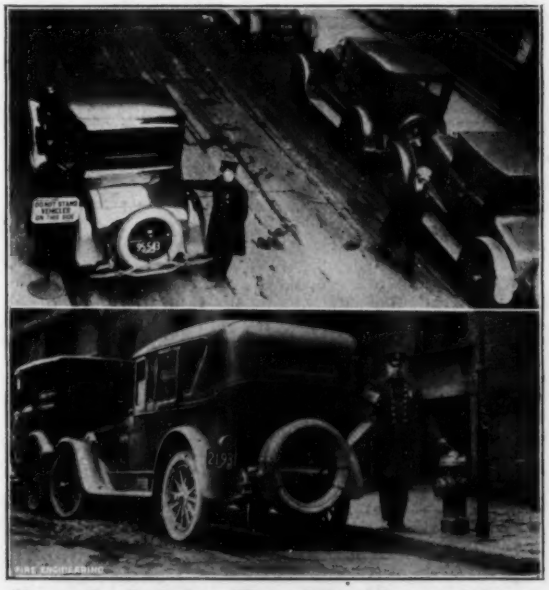
In order to carry out the line of work started by Chief Caulfield without the necessity of detaching a regular department officer from fire duty the Boston fire commissioner decided some months ago to appoint a civilian traffic chief for the department. George F. Cobb, an honorary member of the Fire Chiefs' Club of Massachusetts well known for his study of traffic and transportation problems, was appointed to the position.

At the start of the campaign he enlisted the aid of the Box 52 Association, Chamber of Commerce, and other civic organizations to help spread publicity regarding the danger of obstructed hydrants and other conditions which interfered with the fire department's work.

Disregard of Traffic Ordinances Affecting Fire Department

Mr. Cobb recently issued a statement calling attention to the disregard of traffic ordinances which affect the fire department, pointing out:

1. That other cities have had serious fire on account of similar conditions, an instance in particular being a fire in Rochester, N. Y., on April 8, 1924, when apparatus was unable to get to hydrants because of automobiles.
2. That the educational campaign undertaken by the Boston Fire Department last spring showed beneficial results and proved that hydrants and corners could be kept clear.
3. That since then conditions have been getting worse and at present in the business section of the city hydrants are often blocked, automobiles are left on street corners and opposite streets that do not cross, and that if these conditions are allowed to continue it is only a question of time when the city will suffer a serious loss of property and perhaps of life.
4. That inspectors reported that on one day recently in a period of an hour and a half no less than 59 hydrants were found blocked by automobiles.
5. That at nearly every corner where there are no traffic officers on duty cars are parked too close to the street intersections.
6. That no attention is being paid to the ordinance prohibiting parking on only one side of one way streets.
7. That no attention is being paid to the ordinance prohibiting parking opposite a street which does not cross the other thoroughfare.
8. That the entire parking proposition is a large problem and that new laws and regulations will be required to handle it for the future. That the present ordinances which cover parking on one way streets, at corners, near hydrants, and opposite streets which do not cross, should be brought to the attention of the public for the best interest of all concerned.
9. That taxicabs especially are not paying any attention to the above ordinances and that although there is not as much danger in the case of the taxicabs because there is a driver on each car at all times, nevertheless the practice is bad and it gives the public a chance to find fault because of being compelled to obey regulations which the taxicab drivers appear to be able to violate at will.



Upper, Car Parked on Wrong Side of Restricted Street. Lower, Car Parked Too Near Hydrant.

Suggests Posting Copy of New Traffic Law

Mr. Cobb suggested that a copy of the new traffic law, Acts of 1925, Chapter 306, Page 353, be sent to the police department with a request that it be read at roll call and that a copy of the first part of the new law be sent to the Boston Elevated Railway and the Eastern Massachcusetts Street Railway with a request that it be posted in all of the car houses.

This law was passed by the last legislature as a result of the work of the traffic committee appointed by former Gov. Cox and it was sponsored and approved by the Fire Chiefs' Club of Massachusetts.

This law is as follows:

Chapter 306—An act Further Restricting the Use of Ways in Case of Fire. Be it enacted, etc., as follows: Section 1, Chapter 89, of the gen-

eral laws is hereby amended by inserting after section 6 the following new section 6 A: Every motorman of a car upon a street railway shall, upon the approach of fire apparatus going to a fire or responding to an alarm, immediately stop said car and keep the same at a standstill until such apparatus has passed. Violation of any provision of this section shall be punished by a fine of not more than $25.

Section 2. Said chapter 89 is hereby further amended by inserting after section 7 the following new section, Section 7 A: Upon the approach of any fire apparatus which is going to a fire or responding to an alarm, every person driving a vehicle on a way shall immediately drive said vehicle as far as possible toward the right-hand curb or side of said way and shall keep the same at a standstill until such fire apparatus has passed. No person shall drive a vehicle within 300 feet of any fire apparatus going to a fire or responding to an alarm, nor drive said vehicle, park, or leave the same unattended within 600 ft. of a fire or within the fire-lines established by the fire department thereat. Violations punishable by a fine of $25.

Scope of Traffic Chief's Work

The following communications will indicate the scope of the work of the traffic chief:

Referring to report made by Capt. Stout, of Engine Company No. 32, and his recommendations:

1st.—That the Boston Elevated be prohibited from discharging its passengers outside of the terminal at Sullivan Square, which is the end of the six cent fare limit on surface cars. This stop is now half way between the terminal and the railroad crossing.

Mr. A. S. Scott, division superintendent of the Elevated, states that he will be glad to move this stop to the other side of the railroad crossing at the junction of Main and Bunker Hill Streets, if he is requested to do so by the fire department. This plan would allow a car after leaving the railroad crossing to enter the terminal without holding up traffic.

Suggest that a letter be sent to Mr. Scott making this request.

2nd.—That a traffic officer be stationed in Sullivan Square between the hours of 8 A. M. and 6 P. M.

This crossing is now being covered during morning and night ruch hours by Capt. Goff, of Station 15, with two route men. There should be a traffic officer at this point all day and requests for same have been to the police department by other interested parties; but, because of shortage of men, nothing has been done.

Suggest that a letter be sent to the police department, calling attention to this situation which is bound to be a serious one for the fire department in case of a run in that direction when this crossing is without a traffic officer.

3rd.—Regarding automobiles spreading out on the street. This matter was taken up with Capt. Goff and he will make the following recommendations to overcome this condition:

Place No Parking Signs on the Main Street sidewalk of the Sullivan Square Playground and have a white line painted on the pavement between the inward and outward bound tracks which will stop the spreading of automobiles and still allow three lines of traffic on its proper side.

The proposed changes in Sullivan Square, now under consideration by the street commissioners and planning board, will be of great help when they are finally made.

A report made October 2 states: Have had interview today with Capt. Laffey, of Police Division No. 2, regarding placing of no parking signs on both ends of Massachusetts Avenue between St. Botolph Street and a point fifty feet east of the bridge across the railroad. This should prevent the traffic jams that have occurred at this point recently and Capt. Laffey has agreed to recommend the same.

Under date of October 7 a report states: The street commissioners are preparing to have a new copy of the traffic rules printed. Article 4, Section 5, now reads as follows: "Where streets connect with, but do not cross other streets, vehicles shall not stand opposite the ends of such connecting streets." This rule, to be of any benefit to the fire department should also cover the 20 feet from where the street would cross if it were an intersecting street.

This rule should read as follows: "Where streets connect with but do not cross other streets, vehicles shall not stand opposite the ends of such connecting streets nor within 20 feet of where the corner would be if the streets were intersecting."

West Street, opposite Mason Street, is a sample of a street of this kind where the present rule only prohibits vehicles from standing opposite Mason Street whereas a vehicle on that side within 20 feet either to the right or left is an interference to fire apparatus.

Suggest that this matter be called to the attention of the street commissioners.

On Parking in the Theatre District

Parking in theatre district: The congestion of vehicles in the theatre district at the time of opening and closing of the theatres is becoming a serious menace to the fire department.

On Boylston Street where no parking is allowed on one side conditions are a little better than at other points. On account of the number of theatres near that section the worse condition is on Tremont Street between Boylston Street and the junction of Tremont Street and Shawmut Avenue. Since the no parking rule on Boylston Street has certainly been of great help, would suggest that if this rule could be applied to Tremont Street, on both sides between Boylston Street and the junction of Tremont Street and Shawmut Avenue, it would allow vehicles with drivers to get to the theatre entrances at once when the theatres were let out while persons who had left their cars unattended would have to leave them at a greater distance from the theatres and much of the traffic would have moved before these cars were ready to leave.

The side streets off of Shawmut Avenue could be used for parking as well as Shawmut Avenue itself beyond Broadway which is little used for this purpose at present. In connection with this parking, however, it should be restricted to one side of narrow streets such as Common Street and Warrenton Street.

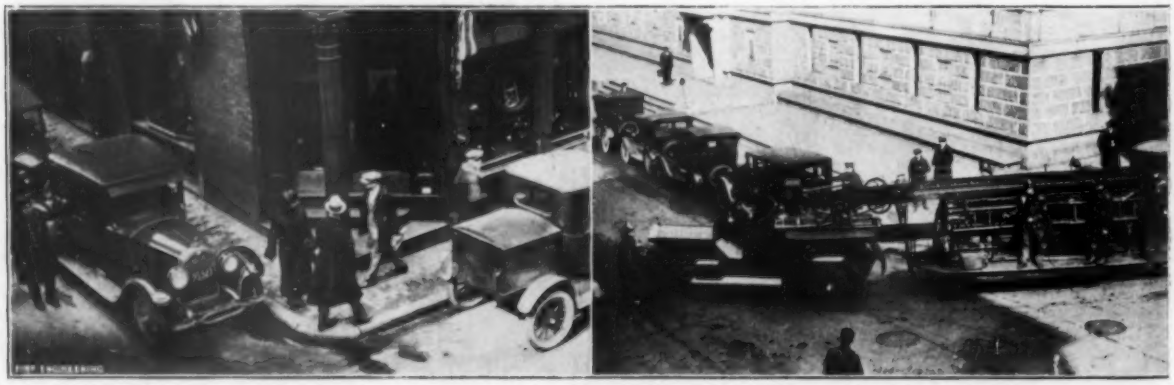
Tremont Street, between Park and Boylston Streets, becomes badly blocked at theatre time and it would seem as though one of the reasons for this is the diagonal parking allowed at this point. Every car that has to back into line slows up the straight traffic and while so many cars could be accommodated by parallel parking it would seem that for the best interests of the fire department and also as an aid to traffic, people who attend the theatres should be willing to park their cars at greater distances from the theatres rather than try and reach the nearest point to where they are going regardless of the harm they do to the traffic situation in general and the fire department in particular.

Hearings were held on the questions involved and as a result Tremont Street was made a one way thoroughfare from Stuart Street to Shawmut Avenue during theatre hours.

Some Further Traffic Suggestions

October 19—Have had an interview today with Ellerton J. Brehaut, of the civic department of the Boston Chamber of

(*Continued on page* 159)



Left, Cars Parked Too Near Street Corner. Right, Ladder Truck No. 8, Boston, Making a Corner. Note How Parked Autos Obstruct the Turn.

Covering Exposures with Wagon Pipes to Hold Fire

Prevent Extension of Fire to Adjacent Buildings by Getting Heavy Streams in Operation at Once; Concentrate Streams to Accomplish this Result

THE fire described in the January 25th issue of this journal extended to adjacent hotel building as a result of the following:

Delay in calling additional apparatus;
Not properly covering exposures;
Not getting heavy streams into operation at once.

To sum up the fire, the blaze started in a three story film exchange building shown in Fig. 2 herewith and due to the tremendous quantities of old and new film stored therein it quickly involved this building and spread to the hotel building immediately behind.

From the hotel building the fire progressed to adjoining store, the four story store and office buildings and three story office building in the order named (see Fig. 1).

The fire department, once it was fully in operation, did good work, but it was in the early stages of the fire that progress might have been checked.

The response to alarms in the section of the city in which this fire occurred is as follows:

Alarm	Engine Companies	Ladder Trucks
1	4	2
2	8	4
3	12	4
4	16	6
5	20	6

These figures are for the total amount of apparatus responding on each and previous alarms. For instance, on the third alarm the response is given as 12 engines and 4 truck companies. This represents those engines responding on first and second alarms as well as the third alarm; similarly with the trucks.

For simplicity of description of the operations at the fire the engine company numbers will be assumed as follows:

First alarm, engine companies Nos. 1, 2, 3, and 4 and truck Nos. 1 and 2.

Second alarm, engine companies Nos. 5, 6, 7, 8, and trucks 3 and 4.

Third alarm, engine companies Nos. 9, 10, 11, 12, and no truck companies.

Fourth alarm, engine companies Nos. 13, 14, 15, 16 and truck companies 5 and 6.

Fifth Alarm, engine companies Nos. 17, 18, 19, and 20, no truck companies.

The alarm was sent in only after the building was fully involved by fire and the fire increasing in intensity at a furious rate. Flames were flashing out of all windows showing that the heat was of sufficient intensity to break the glass. It was impossible to get to the roof to ventilate as described in the first fire and equally difficult to get lines in on any floor due to the presence of heat, and fumes from decomposing celluloid. These fumes flashed or exploded at intervals in the early part of the fire and later on burned continuously.

A battalion chief responds with first alarm.

Noting the extremely severe condition at the fire, the exposures, and particularly the narrowness of the alley between the rear of the film building and the highly combustible hotel building, a third alarm should be transmitted at once. Assuming that half the engine companies are equipped with hose tenders carrying deck guns the assignment of apparatus would be as follows:

Engine Co. No. 1 at hydrant No. 3. Stretch two lines to deck gun placed on Parkside Avenue directly opposite the alley. This stream to cover exposure to the hotel building as well as wet down at the rear of the film building.

Engine Co. No. 2 at hydrant No. 4. Stretch two lines at deck gun located on Smith Street. This to cover the Smith Street side of film exchange building and prevent fire from crossing the street.

Engine Co. No. 3 at hydrant No. 5. Stretch single line by means of ladder to roof. Use 1¼ inch nozzle and employ this stream to operate on fire and cover rear of hotel if necessary.

Engine Co. No. 4 at hydrant No. 7. Stretch two lines into single 50 foot line of 2½ inch hose, employing 1½ inch tip and operate from street on Parkside Avenue side of film exchange building. If necessary employ this line to operate on rear of film building fire and at the same time assist in covering exposure of hotel.

Apparatus responding on second alarm would be assigned as follows:

Engine Co. No. 5 at hydrant No. 8 Stretch single line to roof of restaurant building by way of ladders and employing 1¼ inch tip operate on fire through windows overlooking the restaurant building.

Engine Co. No. 6 at hydrant No. 1. Stretch two lines through hotel to the rear of ground floor and operate on fire. Due to the width of the hotel building and the narrowness of the alley it will be necessary to operate two lines to properly cover this floor.

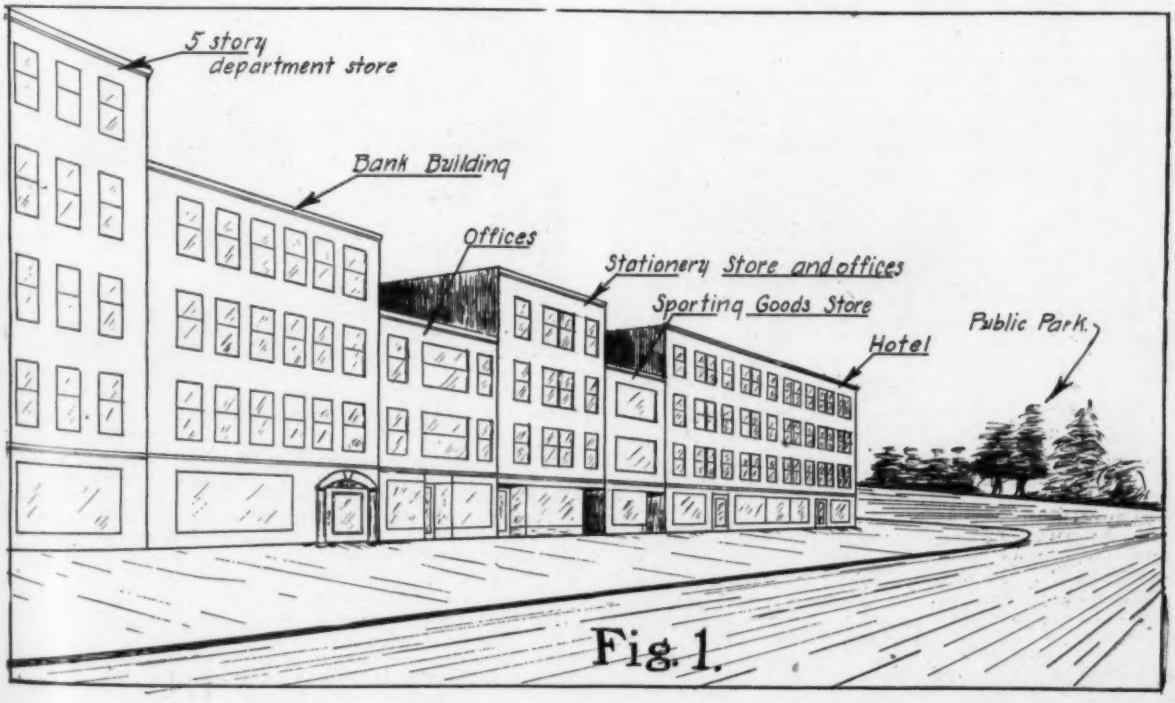


Fig. 1.

Engine Co. No. 7 at hydrant No. 2. Stretch two lines to second floor of hotel and operate from rear windows on to film exchange building fire.

Engine Co. No. 8 at hydrant No. 6. Stretch two lines with the assistance of truckmen or other available men to third floor of hotel and operate from rear windows into exchange building fire.

Apparatus responding to third alarm would be assigned as follows:

Engine Co. No. 9 at hydrant No. 18. Stretch one or two lines to deck pipe on Smith Street, this deck pipe to operate on fire in film exchange building.

Engine Co. No. 10 at hydrant No. 6. Stretch one or two lines

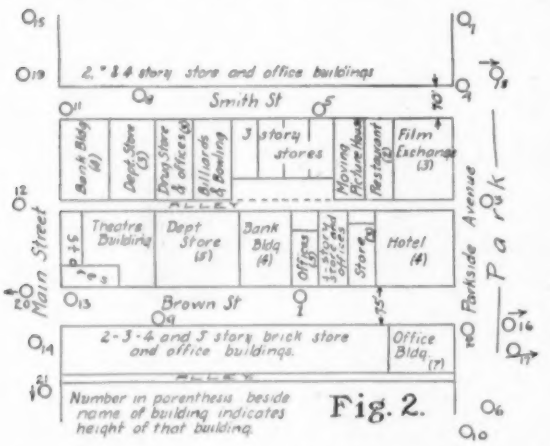


Fig. 2.

to deck pipe on Parkside Avenue and operate in on to fire in film exchange building.

Engine Companies Nos. 11 and 12 would be assigned to any points required.

The assignment of truck companies would be as follows:

Truck No. 1 to assist engine companies in opening up; members of truck company to go through hotel at once and see that guests were ordered out.

Truck Co. No. 2 to assist engine companies in placing ladders and in whatever other manner possible. Members of this company would be assigned to survey restaurant building to make sure that fire has not passed to basement or parts of building.

Truck Co. No. 3 to assist engine companies in any manner possible in laying of lines and to patrol exposed buildings to make sure that fire is not extending.

Truck Co. No. 4 to operate as required in assisting engine companies in laying lines, opening up or placing ladders.

This assignment of apparatus should be able to handle the fire. It will be noted in the above assignment that the first steps taken were to get heavy streams in operation to cover exposures. This is absolutely necessary. The success in holding this fire depends upon confining the fire to the fire building.

Further, it will be noted that no early attempt was made to extinguish the fire but all efforts were directed toward covering exposures.

This is the proper method of approaching the problem, as in the actual handling of this fire the directing of attention to the extinguishing the film exchange building fire resulted in fire extending to surrounding buildings.

Note the number of lines covering exposures and confining the fire to the one building. In the hotel building alone there are six lines in operation, operating on the fire, while the deck gun of engine company No. 1 and lines from engine Co. No. 3 are also of service in covering the exposures to the hotel building. Engine Co. No. 4, likewise, is used for covering exposures when necessary.

Lebanon, Pa., Re-Elects Chief—George L. Shuey was re-elected chief of the fire department at Lebanon, Pa. Harper W. Pierce was promoted from second to first assistant chief and John M. Keller was elected second assistant chief.

Chicago, Apparatus Strikes Street Car—One fireman was hurt and several passengers injured and shaken when a fire apparatus of Chicago, Ill., struck a street car. The passengers became instantly panic stricken and fought to get out of the car.

Montgomery, Pa., County Firemen Hold Meeting—Thirty-two companies were present at the January meeting of the Montgomery, Pa., County Firemen's Association at Landsdale as the guests of the Fairmount fire company. President Miller presided at the meeting.

Chiefs Favor Retirement Plan

A resolution was recently adopted by the Dominion Association of Fire Chiefs to benefit many Canadian firemen by means of a substantial retirement scheme. It is recommended in this resolution that all municipalities in Canada adopt the industrial retirement plan drafted by the Metropolitan Life, which plan is cooperative and is guaranteed through the issue of deferred annuities. The plan not only provides a life income for a fireman who retires at the age of 65, but in the event of his retiring before that age, he would receive every dollar he may have contributed. In case a total and permanent disability, he would receive twice as much as he has contributed to date. In the event of death, his beneficiary would be paid twice as much as he has contributed. The amount of retirement pension will vary according to age and amount contributed by each individual in the organization.

Detroit Awards Chief's Trophy

The fire chief's trophy, presented by Chief Meginnity, and awarded to the fire company in Detroit, Mich., who performed the necessary department evolutions in the least amount of time, was given to Company 14.

In presenting his trophy to the prize-winning company, Chief Meginnity said, "I feel a personal satisfaction in presenting you with this token of your achievement and splendid performance. Just thirty-seven years ago, this fire house was built and I commanded the first company. Consequently there is always a soft spot in my heart for Engine Company No. 14." Speeches were also made at the presentation by Charles F. Clippert, president of the board of fire commissioners and C. Hayward Murphy, commissioner.

—Courtesy, Detroit News

Capt. Kossuch of Detroit, Mich., Holding the Chief's Trophy Presented to His Company.

The annual competition for the department evolutions have been won for the past four years by this company but this is the first year that the trophy has been presented.

Waynesburg, Pa., Buys Apparaus—The Boro of Waynesburg, Pa., recently purchased an American-LaFrance 750-gallon triple combination car. At the official test the machine delivered 300 gallons more than the guaranteed capacity.

COURSE OF INSTRUCTION IN FIRE PROTECTION

AS GIVEN AT THE UNIVERSITY OF ILLINOIS

FIRE PREVENTION AND BUILDING CONSTRUCTION

By RAYMOND T. NELSON,
Engineer, Western Actuarial Bureau, Chicago.

THIS fourth installment of the University of Illinois Course in Fire Prevention treats of a matter of interest to all fire fighters, and one on which much of the work of fire prevention must hinge. Given a properly constructed building, the danger of fire is reduced to very high degree, and therefore Mr. Nelson's ideas will prove of help to all:

Have you ever thought of the general subject of Fire Prevention and Building Construction, and if so have you ever considered how much thought the average individual gives to the building he occupies as long as it satisfactorily serves the purpose for which it is being used?

Some time ago I stopped in to see Captain Healy, of the Rogers Park fire station in Chicago. I sought him out purposely to ask this question, as to how much thought the average individual gives to the building he occupies, as long as it satisfactorily serves its purpose, and Captain Healy answered me in practically the same terms that several other people have. By the way, Captain Healy is well qualified to answer inasmuch as he is the oldest active member of the Chicago city fire department. He said, "very little." Following this answer I asked why so little attention was given to the buildings and a reply came from him similar to one I have received from several others, and you undoubtedly have asked the same question from time to time. "Why?"

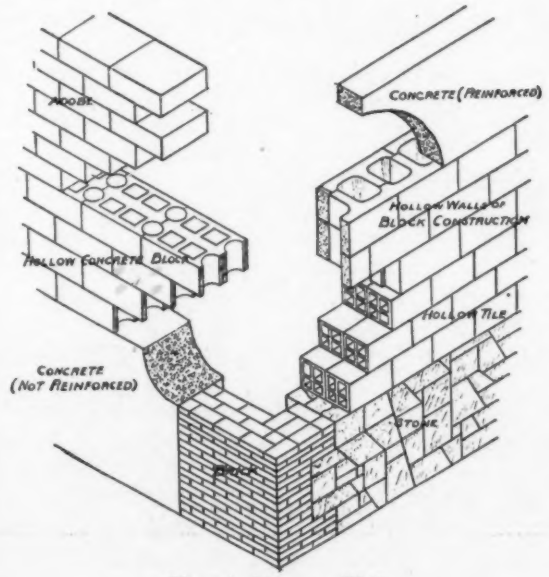


Plate 1. Masonry Walls.

Production and Time Rule of Age

We are living in a most peculiar age, an age where production and time rule beyond all other things. Every year production must be perfected to an almost ideal state in order to meet competition. In perfecting production and increasing turnover the building is entirely disregarded as long as its housing facilities suffice and then should reconstruction be required, the cheapest possible building is put up. No expense is spared on machinery, but as much as possible is saved upon the housing. The building itself does not actually contribute towards the efficiency of the machinery contained within that structure. I am speaking more of our mercantile and industrial property than dwelling house property in this behalf, but the same thing applies to the dwelling as any other structure.

Few People Consider Fire Seriously

Very few people consider fire seriously. They only realize the power of its sting when it befalls them and then its memory is not long lasting, for they return to their former ways and trust to Divine Providence to protect them. This is more true relating to the building than to the occupancy itself. Have you ever read reports of large fires and followed up those reports as to how the properties were replaced? Undoubtedly if you have you have found that the buildings were put in practically the same identical manner as they were before the conflagration.

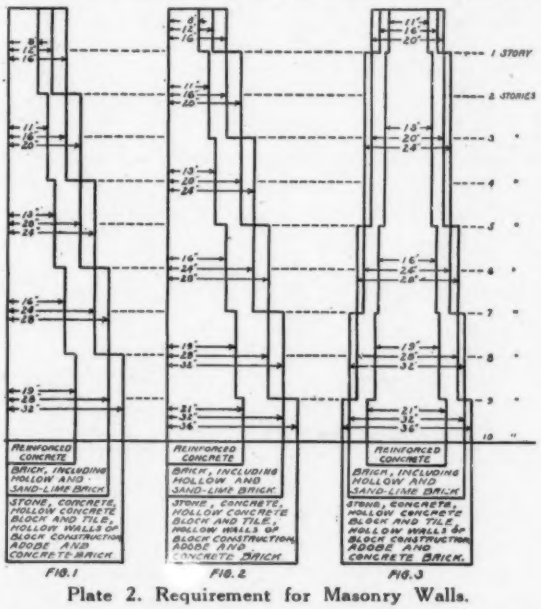

1 STORY
2 STORIES
REINFORCED CONCRETE
BRICK, INCLUDING HOLLOW AND SAND-LIME BRICK
STONE, CONCRETE, HOLLOW CONCRETE BLOCK AND TILE, HOLLOW WALLS OF BLOCK CONSTRUCTION, ADOBE AND CONCRETE BRICK
FIG. 1
FIG. 2
FIG. 3

Plate 2. Requirement for Masonry Walls.

You have heard of the Berkeley conflagration and the Berkeley conflageration probably illustrates this point more effectively than any other we have had to deal with, for in the heat of the conflagration Berkeley passed an anti-wooden shingle ordinance and practically before the embers were cooled repealed it, permitting people to replace their roofs with the same material which causd their properties to be destroyed.

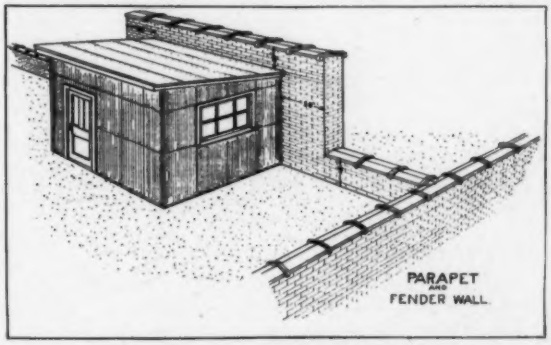


Plate 3. Parapet or Fender Walls.

Fire Proof Construction as Fire Retardant

Our large fires have demonstrated certain facts which must not be lost sight of. In Baltimore, San Francisco and Japan, the

only buildings that stood in the path of the fire were those of fire-proof construction, and you may be interested to know the only buildings which stood the earthquake in Japan were of an American built fire-resistive type. It is true they were seriously damaged, but notwithstanding this they absorbed the shock and in so doing stood as a barrier, thereby reducing the probable spread to limits far beyond where the fire died out.

Only three years ago in Chicago we came in contact with an illustration of this character and, had the Burlington building not stood where it did, no one can tell where that fire would have gone to, and I may say, had the Burlington building not absorbed the entire fire from the Austin building, this fire would have been one of the greatest conflagrations we have ever had.

Buildings Classified in Three Groups

In the present day buildings are generally classified in three groups, the fire-resistive group, more commonly known as fire-proof; the brick group, and the frame group. In discussing the standards applicable to these various types of structures, I believe it is better to discuss them more from the standpoint of fire insurance standards than purely structural standards, inasmuch as the standards the insurance companies have adopted are solely for the purpose of minimizing the spread of fire. We have individual standards which deal with stress and strain, a build ng designed to carry certain loads, and the standard adopted by the fire insurance company may not meet the requirements for which the building is to be used. We may need a very much thicker floor in order to carry the load to which the floor is to be subjected, but from the standpoint of fire insurance that floor need not be over four inches thick if of reinforced concrete or six inches if of hollow tile. We will discuss this from that point of view, inasmuch as that represents the minimum that should be applied in order to stop the spread of the fire. But please do

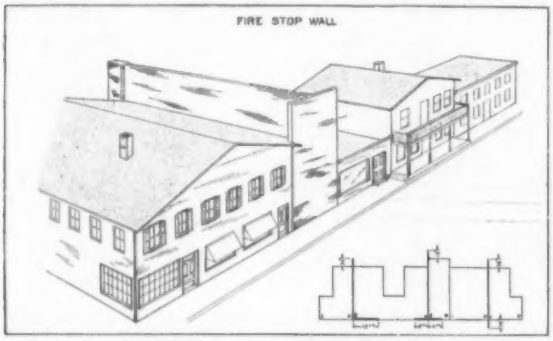


Plate 4. Fire Stop Wall.

not take this as a fact that the floors should not be more than the specified thickness, as the thickness should be varied in order to carry the loads to which the floor is to be subjected, the thickness specified in the illustrative example being merely the minimum requirement.

Three classes of buildings exist, the fire-proof, brick and frame. In order that we may understand the various types of structures, the first thing we will do is to consider the basic definitions of each type.

Fire-proof Buildings—Buildings of this class of construction are defined as those having masonry exterior walls or incombustible exterior walls between masonry or protected metal supports, with all floors and roof of fire-proof construction.

Brick Buildings—Buildings of this class of construction are defined as those having masonry exterior walls or incombustible exterior walls with:

a. All floors and roof combustible or incombustible.
b. All floors fire-proof, but with a combustible or incombustible roof not separated from top story by a fire-proof ceiling conforming to the requirements for fire-proof floors, or from basement or lowest floor by three fire-proof floors.

Frame Buildings—Buildings of this class of construction are defined as those having combustible exterior walls with combustible or incombustible floors and roof.

WALLS

Masonry Walls

Definition: Masonry walls are defined as walls of brick (including hollow, sand-lime and concrete brick), stone, concrete, adobe, hollow concrete block or tile, and hollow walls of block construction. (See Plate 1.)

Requirements: The thickness of a masonry wall is dependent upon the Class of Occupancy, the Class of Wall, and the Material of Wall.

Class of Occupancy: Occupancies are classified as Light or Ordinary, Light Occupancies consisting of such occupancies as banks, churches, dwellings, libraries, offices, etc. For a complete list, see the "Analytic System." All occupancies not classified as Light are considered Ordinary Occupancies.

Class of Wall: Walls are classified as Independent, and Party or Division Walls, these in turn being subdivided into Bearing and Non-Bearing Walls.

An Independent Wall is any wall other than a Party or Division Wall.

A Party or Division Wall is a wall common to two or more buildings on one or more floors.

A Bearing Wall is a wall which supports any load in additionto its own weight.

A Non-bearing Wall is a wall which supports no load in addition to its own weight.

REQUIREMENTS FOR BRICK WALLS

In the following table, two sets of figures are found, Light Face and Bold Face, designating the thicknesses required for brick walls of varying heights. Preceding this table appears a key which outlines the requirements applying for each combination of Class of Occupancy and Class of Wall.

Key

Independent Wall	Light Occupancy	Bearing	Light Face Figures Fig. 1
		Non-bearing	
	Ordinary Occupancy	Non-bearing	
		Bearing	
Party or Division Wall	Light Occupancy	Bearing	Bold Face Figures Fig. 2
		Non-bearing	
	Ordinary Occupancy	Bearing	
		Non-bearing	

Minimum Thickness

	Stories									
Stories	1	2	3	4	5	6	7	8	9	10
One story	12									
	12									
Two stories	12	12								
	16	**12**								
Three stories	16	12	12							
	16	**16**	**12**							
Four stories	16	16	12	12						
	20	**16**	**16**	**12**						
Five stories	20	16	16	12	12					
	20	**20**	**16**	**16**	**12**					
Six stories	20	20	16	16	12	12				
	24	**20**	**20**	**16**	**16**	**12**				
Seven stories	24	20	20	16	16	12	12			
	24	**24**	**20**	**20**	**16**	**16**	**12**			
Eight stories	24	24	20	20	16	16	12	12		
	28	**24**	**24**	**20**	**20**	**16**	**16**	**12**		
Nine stories	28	24	24	20	20	16	16	12	12	
	28	**28**	**24**	**24**	**20**	**20**	**16**	**16**	**12**	
Ten stories	28	28	24	24	20	20	16	16	12	12
	32	**28**	**28**	**24**	**24**	**20**	**20**	**16**	**16**	**12**

Party or Division Walls: In addition to the requirements given above, Party or Division Walls should not be less than 16 inches thick on top story common to both buildings nor less than 20 inches thick on any story below common to both buildings. (Fig. 3, Plate 2.)

Material of Walls: The following modifications in the requirements for brick walls should be made for each material:

Reinforced Concrete Walls: Thickness should not be less than two-thirds of that specified for brick walls; minimum 8 inches.

Stone or Concrete (not reinforced) Walls: Thickness should be 4 inches greater than that specified for brick walls.

Hollow Concrete Block or Tile Walls or Hollow Walls of Block Construction: Thickness should be 4 inches greater than that specified for brick walls. If faced on both sides with 4 inches or on one side with eight inches of brick, such walls should be considered the equivalent of brick walls.

Hollow Brick and Sand-Lime Brick Walls (approximate size of brick 2½ x 4 x 8 inches): Thickness should be the same as that specified for brick walls.

Concrete Brick Walls (approximate size of brick 2½ x 4 x 8 inches): Thickness should be the same as that specified for stone or concrete (not re-inforced) walls.

Adobe Walls: Thickness should be 4 inches greater than that specified for brick walls.

Parapet and Fender Walls

Definitions: A Parapet wall is that portion of a masonry wall which extends above the roof line of a building.

A Fender Wall is that portion of a masonry wall which extends beyond structures or extensions.

Requirements: A Parapet Wall should extend not less than 18 inches above the roof lines of the building except when

(*Continued on page* 144)

WITH THE EDITOR

Fire Chief's Tenure of Office

NOTHING can destroy the efficiency of a fire department more effectively than frequent changes of its commanding officer. A careful census of the fire organizations in the medium and large cities of the country will show that those of greatest efficiency have kept the same chief in office for several years. On the other hand, instances can be cited where fire departments have been kept in a semi-demoralized state because of frequent changes in this office. It is admitted that in some cases a change may be for the good of the department, but such change is rarely brought about by politics. Considered from the standpoint of efficiency, the principle of changing the fire chief every time the city administration changes is a bad one. It undermines the morale of the department. It destroys the incentive of the officers to progress. If the chief knows that his tenure of office is uncertain, or subject to the whims of politicians, he is not likely to show the same interest in his work that he would where he knows his continuance in office depends upon his work. He is apt to have an eye constantly on the look-out for something else with a greater degree of permanency and appreciation of his services.

Many departments,—and these are the most efficient ones—keep the capable chief in office, removing for cause only. It would be for the best in every city to establish an ordinance making the chief permanent and adhere to it.

No man, in whatever position he is placed, is going to give his best efforts when the future has nothing in store for him.

York, Pa., with a population of 50,000, has been protected from fire by a volunteer department, under a paid chief, Edgar C. Landes, who has rendered excellent service to the city. The department is credited with being above the average of volunteer organizations, and doubtless will become full-paid within the next year or so. But the city has seen fit to displace its chief and has appointed a subordinate in the department to that position.

The city authorities may well take a leaf from the history of any successful department and when installing a paid force make provision such that the chief, if he be an efficient officer, be assured of continuance in office.

A City's Indiscretion

FROM what rational viewpoint the city of Columbus, O., can justify its action in dropping thirty men from its fire department is difficult to conceive. If it is a stroke of economy, then the city is saving at the spigot and spending at the bunghole. The retention of these thirty men might cost the city approximately fifty thousand dollars a year. It is not straining one's imagination, and is entirely within the realm of possibility, if not probability, that a single fire will cost the city many times this figure as a result of insufficient firemen to cope with it. Cutting the fire-fighting force of Columbus with its 250,000 population, is a hazardous move, considering that it is no better built than the average city of its size in this country.

In the face of such feigned frugality it will be surprising if fire insurance interests do not look askance at the city's move. According to information at hand a number of pieces of apparatus must be taken out of commission for lack of men to handle them. Here are many more thousand dollars laying dormant at the city's expense. While not authorized by him to say so, FIRE ENGINEERING assumes that the city's course does not have the approval of Chief Daniels, who must, however, do his whole duty under every emergency with what force he has.

According to the latest census the per capita expense in maintaining the Columbus fire department was $2.06 based on a population of 240,000, which speaks well for the organization under Chief Daniels. The sum of $765,758 has been appropriated for the maintenance of the fire department during the current year, of which amount $659,850 is for salaries. From the present reduced force must be subtracted another ten per cent who are usually on the sick list, thus bringing the working department down to about 320 men. Under the recent ruling there are sections of the city practically without protection from fire, or so meagerly provided for that property owners are deprived of that feeling of safety that they were once afforded. It is to be hoped that the Capital city of Ohio will not have occasion to regret the step it has taken for no other apparent purpose than to keep its exchequer at a predetermined level.

A New Fire Hazard

THE paramount object of the manufacturer of children's toys is to make a salable article. Further than this little consideration is given. The toy may possess elements of destruction in the hands of its juvenile manipulator, and yet it is offered for sale at Christmas and other times—perhaps thoughtlessly. With the advent of the holiday season, usually comes a long list of casualties in homes or in churches, many times involving the loss of human life, and sometimes the destruction of physical property.

Unfortunately the manufacture and sale of mechanical electrical toys is outside of the jurisdiction of the National Electric Code, and these constitute a new and

serious fire menace in the hands of the amateur and the child. This year dealers in Christmas novelties, ten cent stores, etc., put out parts of electrical fixtures designed for attachment to the tree lights and which necessitated wiring into such illuminating sets by amateur electricians. The consequence of such unapproved electrical work, with wires left carelessly or not at all insulated, is not hard to visualize.

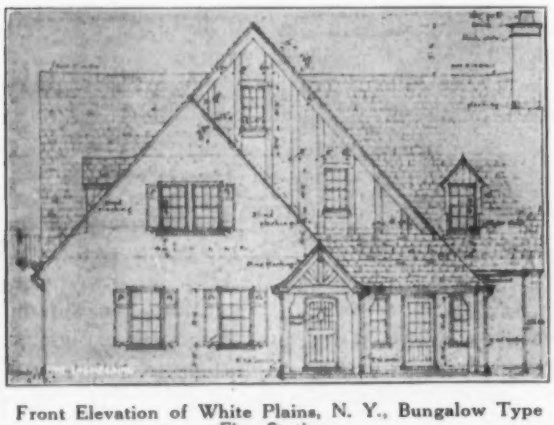
One of the many recent incidents of toy disasters comes from Freeport, Long Island. A miniature electric train of cars in the hands of a child caused a $3,000 fire. The boy had laid the track out on a table near a filmy curtain. The wires were poorly insulated and a short circuit occurred. The curtains caught fire and the flames spread to the woodwork. At the Christmas season of the year the stores are stocked with materials of the most inflammable sort; poorly insulated electric wires with bulbs attached are on sale; decorations of a combustible nature, and many other articles that come into use faster than the fire authorities can detect them.

The time must come soon when it will be necessary to forbid by law the wiring except by authorized electricians of Christmas tree lighting fixtures, electrical toys, and in fact any form of electrical work involving the danger of short-circuiting and the flash which nearly always means the ignition of some nearby flimsy material or a slow burning fire which will burst into flame at the most unexpected time, often at night. Amateur electrical work of all kinds, now so prevalent, almost always involves the danger that inexperience in the action of the electric current produces. And the consequences are altogether too serious to allow such practices to go on uncontrolled.

Bungalow Station for White Plains, N. Y.

A new bungalow type fire station is to be erected in White Plains, N. Y., and the following illustrations are reproduced through the courtesy of Chief H. Abbot Griffen of the White Plains fire department.

The building will be constructed of stucco with a slate roof

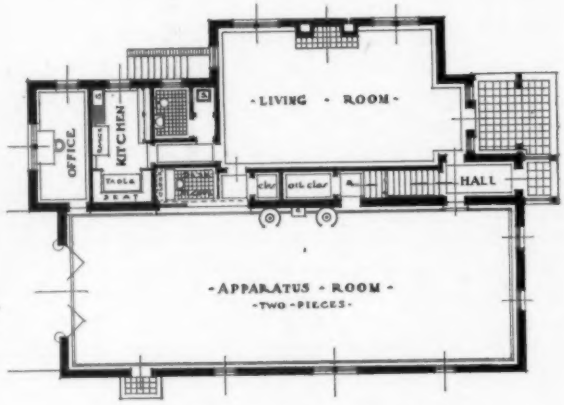


Front Elevation of White Plains, N. Y., Bungalow Type Fire Station.

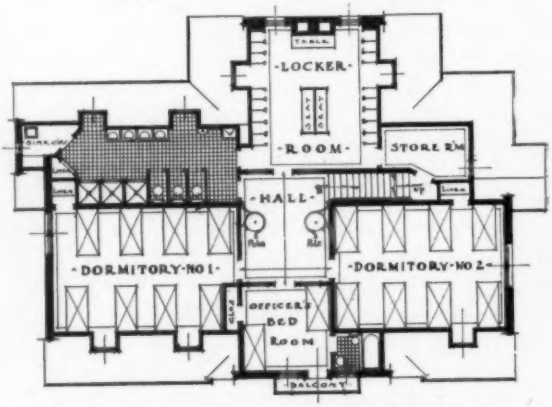
and has been designed somewhat along the lines of English architecture. The section of the cellar which is underneath the apparatus floor is unexcavated and in the dug-out portion, will be the work room, acid room, heating equipment and coal storage. The maximum dimensions of the building are about seventy by fifty feet.

The apparatus room is to have a brick floor and a glazed brick wall with six large windows, a side door and a front door of leaded glass. The living room has a large fire place and will be very homelike. From this room there is access to an inviting porch in the rear. The other features are as shown in the plan.

On the second floor are the dormitories, officers' room, wash



-GROUND - FLOOR - PLAN-



- -SECOND - FLOOR - PLAN - -

room, locker room and store room. From the officers' room there is a door leading to a balcony with an iron rail. Quick access is provided from all rooms to the two brass sliding poles which run to the apparatus floor.

Toy Electric Train Causes Fire

Freeport, L. I., sustained a fire loss on January 1, amounting to $3,000, due to the careless use of a toy electric train by a little boy. The lad had laid the tracks out on a table near a filmy curtain. The wires, according to report, were poorly insulated, and a short circuit occurred, setting fire to the curtain and igniting the woodwork. The flames were subdued by the quick response of the fire department. The fire was confined to the lower floor, which was practically consumed. Nobody was injured.

Columbus, Ohio, Drops Thirty Firemen

Columbus, Ohio, has dropped thirty men from its fire department. Chief Daniels says that this means the closing of four fire stations in different parts of the city. The equipment in each station will be placed out of commission. The city will now have but 383 men. Insufficient funds to maintain the department as at present constituted is given as a reason for the reduction of the fire fighting force.

QUESTIONS AND ANSWERS

Conducted by FRED SHEPPERD, B. Sc., M. E.

"He that questioneth much shall learn much" —BACON

NOTE—Readers of FIRE ENGINEERING are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified.

Akron Captain Examination Questions

Continuation from last issue of questions for Captains' Examination held in the city of Akron, Ohio, November 30, 1925, with answers to the same:

12. Suppose you are off duty and are attending a performance at a theatre, where the house is crowded, and you observe that persons are allowed to stand and sit in the aisles, what would you do?

13. If there was a fire on the fifth floor of a building and the elevator was still capable of being operated. You want to play a stream of water on the fire and to take your line of hose up the elevator. How would you proceed?

14. If there was a fire in the Buchtel Hotel and you wished to take a line of hose through the front door, and the front door was a revolving door, what would you do first?

15. You arrive at the scene of fire. You find the building completely charged with smoke. What would be the proper procdure?

16. (a) Name in order of their importance six fundamental requirements for the welfare of large cities. (b) State briefly how Akron compares with any or all of these requirements?

17. Name the men now holding the following offices: *County Auditor, County Treasurer, County Sheriff, County Recorder, County Prosecutor.*

18. I bought 165 barrels of apples of 3 bushels each at 35 cents per bushel and sold the whole for $200.00. How much did I gain?

19. A dealer shipped 864 bushels of potatoes one week, three times as many the next week, and the third week 647 bushels less than he shipped in the two preceeding weeks. How many bushels did he ship in the three weeks?

20. Give the regulations provided in the "City Ordinances" concerning the lighting of bonfires in streets and public places of Akron.

Answer 12. The answer to this question depends upon several factors: Whether or not you make theatre details from the fire department; whether or not your local ordinances prohibit obstructing theatre aisles. If a fireman is stationed at a theatre as a theatre detail then it would be your duty to immediately call his attention to the condition. If such detail is not provided and your local laws and ordinances prohibit obstruction of the aisles of theatres, then it would be your duty to call the attention of the proprietor or manager of such theatre to such obstructions and suggest that he have the same removed, or to cause the person or persons standing or sitting in such aisles or passageways to vacate the same. If person or persons so notified shall neglect or refuse to cause such obstruction to be forthwith removed or cause such person or persons to forthwith vacate said aisle or passageway, then it would be your duty to forward a report calling to the particular part of the section of the law which is violated, the manner in which it was violated and the action of the theatre authorities in the matter. This report to be submitted through usual channels to the head of the department.

Answer 13. Question does not state if standpipe system is available. If it is, then the getting of a line in operation on the fifth floor is a simple matter; coiled sections of hose may be brought to the floor below the fire and stretched from the standpipe to the fire floor.

If, however, as the question seems to indicate it is absolutely necessary to stretch the hose up the elevator shaft, then the procedure would be as follows: First place necessary tools in car including axes, claw tool, six foot hook, several extra lengths of hose in coils. Then raise car about 5 feet and stretch in empty line with nozzle already placed thereon and hook acr ss frame work beneath car. Take car up to the fifth floor (assuming that the fire can be fought from the 5th floor and has not extended to such a point as to make operation on the 5th floor impossible.) Stop the car at 5th floor sill and let off men with tools. Send car up about 4 feet further, compressing safety device or door if necessary so that car will move while door leading to 5th floor at elevator shaft is open. As soon as the car has reached this point the men already on the floor unfasten hose and draw in as much as required on the 5th floor. In the event that the fire was too far advanced to operate on 5th floor then the hose should be stretched in on 4th floor and straight up stairway, using the extra length of hose if necessary.

As soon as hose is in position and ready to operate, fasten to secure support by means of hose strap and then order water started.

It will be appreciated that by this method the cage or elevator will be locked just above the 5th floor and cannot be lowered while the hose is in position unless there is sufficient clearance between the elevator and the door sill on the 5th floor. This is very unlikely.

The operation of hoisting hose in an elevator shaft by means of the elevator is very unsatisfactory and is a practice which should not commonly be followed. It is far more satisfactory to stretch hose by means of fire escape or ladders at the front of the building, and in extreme cases to stretch it up stairways.

In New York and other large fire departments the use of elevators is practiced only where the building is absolutely fireproof and where there is absolutely no danger of the hoisting apparatus getting out of commission.

It is most essential that a roof rope be brought along with the equipment for use in an emergency. In case the men are penned in the shaft in the elevator in the event that the fire quickly gains headway, they will be able to cut through the flooring of the elevator and by use of ropes or cables within the shaft to gain the street safely.

Answer 14. If the door through which the hose was to be taken was a revolving door, the first thing necessary to do is to collapse this door.

There are only three types of revolving doors as far as the methods of keeping them apart are classified:

1. A revolving door that has a one-quarter inch cable holding the doors apart; this is a panic-proof door.

To close or collapse this type of door, it is only necessary to push or press on the doors or wings in opposite directions, or else hold one wing from moving and push on the next nearest wing or door.

2. A door with a solid arm passing through one of the doors. This is a drop-arm type. To close or collapse this type, you will find a pawl on the door which the arm passes through alongside of the arm. Press this pawl to disengage it from the arm and push door or wing to one side.

3. This type of door is held in position by metal brace arms that resemble a gate hook with eye. To close or collapse this type it is only necessary to lift the hook and fasten back against fixed door or wing. The hooks are on both sides of these doors. The pivots on the above doors are in most cases cast iron and can easily be broken by forcing the door with a bar at the pivots.

But to get a line of hose through one of these revolving doors it should be collapsed rather than the time lost in breaking the pivots and removing the doors.

Answer 15. Upon arriving at a fire and finding the building completely charged with smoke the first action to be taken after making sure that lines were in readiness would be the ventilation of the building. This is accomplished by opening up at high points first, usually over elevator shafts, stair shafts or other vertical shafts. Ventilation in this manner draws the smoke and gases upward and relieves the heat within the building, making it possible for the men operating the lines to follow the fire up and do effective work at close range.

Answer 16. Water works, fire departments, sewers, police departments, paved streets, street lighting. As to how Akron stands in regard to these fundamental requirements is a question which can best be answered by someone familiar with your city.

Answer 18. There are three bushels in a barrel. 165 barrels would therefore represent 165 x 3 or 495 bushels. 495 bushels at 35 cents a bushel totals $173.25. Sold for $200.00, purchase price $173.25, and the difference would be the gain or $26.75.

Answer 19. 864 bushels were shipped the first week, 3 times as many the second week or 3 x 864 or 2,592 bushels the second week. The third week he shipped 647 bushels less than the total of the two preceding weeks. The total of the two preceding weeks is 864 plus 2,592 or 3,456. 647 less than this is 2,809 bushels. Total shipped is 864 plus 2,592 plus 2,809 or 6,265 bushels.

Pittsburgh Questions with Answers

To the Editor:

Will you please answer the following questions at your earliest convenience and oblige.

Respectfully yours,

M. J. L.,

Dec. 18, 1925. Fire Dept., Pittsburgh, Pa.

Question 1. What do you consider the most hazardous fire a hoseman has to fight?

2. Of what value are fire escapes in carrying hose lines to upper stories?

3. If you were in command of apparatus from your station and on arriving at a fire you found other hosemen already there, what would be your first move?

4. What are the important features which make for efficiency in a fire fighting force?

Answer 1. Probably the most dangerous fire a hoseman has to fight is one occurring in a chemical warehouse where nitric or hydrocyannic acids, or potassium cyanide, are stored.

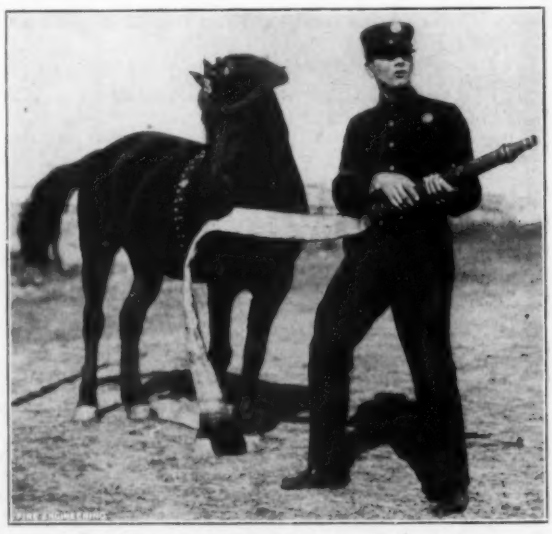
Nitric acid and hydrocyannic acid as well as potassium cyanide give off deadly fumes which may be inhaled without appreciable physical discomfort. Nitric acid fumes may be inhaled and may not produce the fatal effects until several days after exposure. The fumes from potassium cyanide and hydrocyannic acid on the other hand act very quickly and are powerful in producing rapid death.

Answer 2. Fire escapes are of tremendous value in getting lines to upper floors. In the event that floors are fully involved it is frequently possible to drive the fire back through the windows with streams while the men work up the face of the building on the fire escapes to get lines in position where they can do effective work. With the new method of sending lines up fire escapes by the use of hook with chain on end for attaching hose, very fast work can be done in sending hose up fire escapes—in fact faster than any other known method; and men working on fire escapes are at all times within view of the commanding officer which tends toward greater safety.

Answer 3. The question is not very clear and it is not certain whether or not additional companies have arrived or whether hosemen are already on hand from the off-platoon. It will be assumed, however, that upon arriving you find firemen on hand who have arrived with apparatus. This means that some other company commander is also on hand. In this event it is your duty to report to the company commander already on hand for instructions.

First officer on arriving at a fire is in supreme command of the fire until a superior arrives. All officers of rank equal to that of the first officer arriving must report to the first officer on hand for instructions.

Answer 4. The features which make for efficiency in a fire fighting force are good discipline, thorough training, team work and proper tools and apparatus to work with.



Horse Trained for Fire Department Evolutions.

"Lucille", a horse belonging to the fire department of Richmond, Cal., has been trained to perform a number of fire department evolutions and to assist the firemen in the performance of their duties. She is capable of carrying hose, ringing the fire bell and doing other stunts. She is here shown aiding a fireman in hauling a length of hose.

OF INTEREST TO VOLUNTEER FIRE DEPARTMENTS

Garage Fires

There isn't a town or village in the country large enough to possess an organized fire department that cannot boast of one or more public garage.

And in almost every case the garage is the most serious fire hazard the town department has to cope with. The large open area, the presence of cars with gasoline tanks filled or partly filled with gasoline, and the great quantity of combustible

Typical Garage After Fire. Note the large Open Area.

materials such as waste, oily clothes, tires and automobile supplies, all contribute to the fast spread of fire once it originates.

The percentage of garage fires brought under control by small town fire departments is indeed small. This is largely due to the fact that once the fire gains any headway it is quick to involve the entire building. Sweeping over a large floor area it quickly ignites the tops of automobiles and roof beams of building as well. Then in its progress it burns promptly downward and involves the gasoline tanks of cars at which stage it may be classed as beyond control.

Causes of Garage Fires

Carelessness is the real cause of almost all garage fires. Smoking is prevalent in garages in spite of all "No Smoking" signs. Even where rules are enforced among employees, careless customers fail to heed the warnings. Smoking in garage offices is often considered safe, but from one fire report recently made to the N. F. P. A. the following is quoted: "A visitor, while in the office, lighted a cigar and threw the lighted match on to the cement floor where gasoline is spilled at times. The vapor ignited with a flash, the fire spreading rapidly."

The following figures quoted to the National Fire Protection Association are interesting in that they give a relative importance of various contributory and direct fire causes.

To sum up the contributory causes, gasoline and oils were indirectly responsible for fires in the following manner.

Cleaning with gasoline	14 fires
Cleaning with kerosene	5 "
Cleaning with Distillate	2 "
Gasoline in open containers	17 "
Gasoline improperly drained	13 "
Oils or grease, on waste or in open containers	10 "

The following garage fire "causes" are self explanatory and in the majority of cases would not have been responsible for fire if operations such as vulcanizing, were carried on in properly cut-off rooms of fire resistive construction.

Of the automobile causes "back-fire or exhaust" is the most important, being credited with a total of 126 out of a total of 458 fires where the causes are known. The automobile engine depends for its power on the explosion of gasoline vapors; it is not very surprising that the flame of the explosion sometimes escapes from the cylinder.

The back-fire of an internal combustion engine is premature explosion forcing the flame back through the intake connections to the carburetor, where gasoline is always present. During improper gasoline mixture adjustment, flames and sparks may issue from the exhaust but at this location there should be nothing combustible if conditions are as they should be.

Handling Garage Fires

Due to the speed of fire travel in garages, and the intense heat created, there is only one satisfactory method of handling such fires. That is by the use of heavy calibre streams.

The heat must be deadened and deadened quickly. Large streams of water are therefore necessary. Also, due to the large open area, of garages, streams of considerable range are absolutely essential.

Without adequate streams and pressure, little success can be expected against garage fires.

In operating at such fires, the first step is to provide thorough ventilation, by opening up the roof if possible. It must be opened up, however, with liberal sized openings for the quick generation of heat must be neutralized. Opening of doors front and rear as well as windows if they are not already broken is most essential.

While the opening is being performed streams should be brought into play, preferably all at one side of the garage, and fire driven through and out the other side. Where gasoline is present fire will jump from one point to the other and it is exceedingly difficult to extinguish fire as in the case of ordinary fires such as in buildings containing furniture, wood materials, and general merchandise.

The liberal use of water not only extinguishes the fire but also keeps the tanks of gasoline on the cars cooled down and prevents vaporization of the gas within. This eliminates the possibility of further explosion and produces the most effective work. No attempt should be made to remove cars if sufficient

GARAGE FIRE CAUSES

	No. of Fires		Per cent of Known Causes
SPECIAL HAZARD CAUSES—			
AUTOMOBILE CAUSES:			
Backfire or Exhaust	126		27.5
Starting and Lighting System	29		6.3
Ignition System	16		3.5
Static Electricity during filling or drawing off gasoline	9		2.0
Engine Overheated	6		1.3
Filling—exact cause unknown	5		1.1
Carburetor—exact cause unknown	3		.7
Total Automobile Causes		194	42.3
GARAGE CAUSES:			
Oily Material	28		6.1
Vulcanizing	13		2.8
Gasoline Torch	8		1.7
Battery Charging	3		.7
Emery Wheel	2		.4
Burning Carbon from Cylinders	1		.2
Welding	1		.2
Kerosene Wash Tank	1		.2
Soldering	1		.2
Miscellaneous	17		3.7
Total Garage Causes		75	16.4
Total Special Hazard Causes		269	58.7
COMMON CAUSES:			
Smoking or Matches	61		13.3
Lighting	46		10.0
Heating	37		8.1
Power	11		2.4
Rubbish	8		1.7
Boiler or Fuel	7		1.5
Chimney or Stack	2		.4
Locomotive Sparks	2		.4
Lightning	2		.4
Total Common Causes		176	38.4
INCENDIARY		6	1.3
EXPOSURE		7	1.5
Total Known Causes		458	100.0
UNKNOWN		55	
Total No. Fires		513	

apparatus and plenty of water is at hand. Valuable time will be lost by this process.

In directing streams, quickly wash over as large an area as possible. If the ceiling is horizontal and constitutes a good deflector for the streams, the streams at the start may be directed toward the ceiling and deflected over a larger area than would be covered ordinarily if sent free through the building.

Should gasoline have leaked out on the floor and be burning, as usual, with fierceness, then care must be observed in keeping streams off of floor for burning gasoline may be driven beneath other cars and extend the fire instead of check it.

In overhauling or cleaning up after a garage fire, particularly at the stage of the work where fires burning at different points are being killed, care must be observed in directing water in containers which might be filled or partly filled with inflammable liquids.

Thorough ventilation will prevent the accumulation of gases which might explode so that this operation of opening up and providing plenty of air is most essential.

CHIEF GEMPP DESCRIBES IMPRESSIONS OF AMERICAN FIRE DEPARTMENTS

Head of Berlin Fire-Fighting Forces Writes of His Experiences in This Country—Translated by Chief Mainzer

By Wm. Jerome Daly

THROUGH the courtesy of Robert H. Mainzer, honorary deputy chief of the New York Fire Department, the series of articles written by Chief Gempp in the German "Fire & Water" publication have been translated. Chief Mainzer has been good enough to give me some of the "high lights" in the translation.

Chief Walter Gempp, Berlin, Germany.

Chief Gempp was met upon his arrival in America by Chief Mainzer and myself. He arrived on May 9, 1925, aboard the steamer Columbus of what was formerly the North German Lloyd line. He had written in advance to Chief Kenlon and the latter had assigned Chief Mainzer to meet him. For years, Mr. Mainzer has been the liason officer between Chief Kenlon and visiting chiefs from foreign departments. He speaks most of the languages of Continental Europe, is skilled in European diplomacy and knows the "atmosphere" which suits best the dignity of those who come to our shores.

In his narrative, Chief Gempp declared that it was twenty years since any German fire officer was sent abroad to study fire fighting conditions. He said his trip to America was most instructive. The welcome he received in New York surpassed all of his dreams, he declared. There was a reason for this, although Chief Gempp did not write it in his narrative of his trip.

The reason is this, and since it was told to me by Chief Kenlon himself, it in nowise reflects on Chief Gempp as having revealed state secrets. It seems that when Chief Kenlon toured Europe five years ago, he called on the then Chief of the Berlin Fire Department, Herr Reichel, with whom he had a definite appointment. The "feeling" between Germany and the United States had not quite been dissipated and Chief Reichel sent the orderly out to tell the Commanding Officer of the New York Fire Department that he was too busy to see him. Kenlon went direct to the Burgomaster of Berlin and complained of Herr Reichel's discourtesy. Reichel was instantly ordered to report to the Burgomaster and there apologize to Chief Kenlon. At that time Gempp was Reichel's first deputy, later succeeding him. Naturally when he started to America last Spring he had some misgivings as to just how Kenlon would receive him.

But he was most agreeably surprised. Chief Kenlon not alone assigned Chief Mainzer to meet Chief Gempp, but he put at his disposal an official car and detailed to it, two German speaking aides, Lieutenant John Meyer of H. & L. 20 and Fireman John Mayer of Rescue Co. No. 1. Of all this courtesy and attention, Chief Gempp in his narrative is most full of thanks and appreciation. Then he goes on to tell of what he saw in New York, the fire he attended, his inspection of the houses, the fireboats, the fire college, the fire telegraph system, the big buildings, the fire prevention, the ambulance and all the other numerous phases of the New York Department.

With typical German thoroughness and an appetite for detail, he has embraced in his story, many exhibits, sketches, diagrams, etc., of what he observed. Running cards, printed forms and varied other printed materials used in the New York Department are reprinted in Chief Gempp's serial report.

He made memoranda of every hour of his journey which lasted just one month. He stopped in the Shelton Hotel at Lexington avenue and 49th street, New York and his report contains a photograph of that structure. He wrote reams of notes. He took back with him at least 100 pounds of printed materials, many of which he has reproduced in his story of his trip to these shores.

Chief Gempp visited Detroit, Chicago, and Milwaukee, but he centered most of his review on what he saw and heard in New York City. He was very observing while here and quite frank. He attended several fires in New York; one in particular a fire and panic in the subway.

Some of the New York fire fans entertained him most hospitably. Chief Mainzer was his particular host, but Dr. Harry M. Archer and Honorary Battalion Chief M. L. Neumogen also entertained. Chief Gempp created quite some mirth one day at a luncheon at an exclusive club where Chief Mainzer had him meet a score of banking folks and fire officials. The luncheon was all that luncheon by a banker-fire fan should be. Along toward the end of the repast, as waiters danced in attendance replenishing the ice water glasses, Chief Gempp said in effect: "I cannot understand this prohibition of yours in America. You have here splendid cocktails, whisky, cordials, etc., and you all seem to enjoy them—then you allow a waiter to come near the table with a water bottle—I cannot understand it."

Right here, may I make my own observation of Chief Gempp. He stands six feet and two inches, weighs about 200, erect as a

Chief Gempp and Chief Kenlon, New York, Snapped During the Berlin Chief's Visit to America in May of Last Year.

six foot hook and keen as a razor blade. He is University bred, a chemist, electrician and mechanical engineer as well. He was an officer in the German army, but was relieved before the United States entered the conflict. He typifies Teutonic efficiency; has been a fireman seventeen years and does not believe that promotion in the fire service should be dependent upon the outcome of promotion examinations by civil service.

He says further in his tale of his travel to America that the American fireman is the best dressed fireman he has seen, that he holds himself erect, does not smoke while in uniform, salutes with a natural ease without bowing, etc.

The pay of the firemen in the United States he found was four times greater than the salaries paid in Berlin. He mar-

(*Continued on page* 156)

Foam Equipment Has Thorough Test In Big Oil Fire

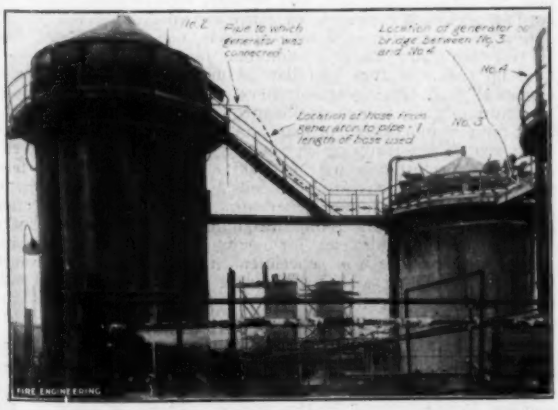
Spectacular Blaze in Gasoline Agitators at Everett, Mass., Fought With Both Foam and Water Lines—Two Kinds of Foam Used

By HARRY BELKNAP, Boston, Mass.

A HIGHLY spectacular fire took place early in the morning of January 19 in gasoline agitators at the plant of the Beacon Oil Company on Beacham Street, Everett, Mass. The flames burned for over 11 hours before they were completely extinguished. Both foam and water were used in fighting the blaze and apparatus was present from Everett, Chelsea, and Boston. Chief Philip A. Ham, of the Everett Fire Department, was in general charge of operations. The cause of the fire has not been determined.

Chief Philip E. Ham, Everett, Mass.

Three agitators, each containing about 2,000 barrels of gasoline, were involved in the fire. Two were badly burned out and a third ignited, but was extinguished quickly by the use of the Foamite equipment connected with the top of the agitator. At the start of the fire, pumps were started in the yard connected with the two tanks which contained 85,000 gallons of the Foamite solution. A short time afterward it appeared that the Foamite had extinguished the flames in the No. 1 Agitator which was the only one then involved; but sometime afterward the blaze flashed up again probably from fire burning at the base of the agitator and the flames then communicated to the other agitators, Numbers 1 and 2, blazing fiercely for hours although the fire in No. 3 was soon put out. It is possible that the effects of the Foamite were weakened by the application of steam through steam pipes connected with the tanks and further diminished by the concentration of water lines. The failure to bring mobile Foamite lines into play on the fire at the base of the agitators is blamed by Bernard W. Dezotell, New England manager of the Foamite-Childs Corporation, for the ultimate spread of the flames. One of the Foamite supply pipes leading to the agitators was found to be broken early in the morning and several hours were required to repair it.

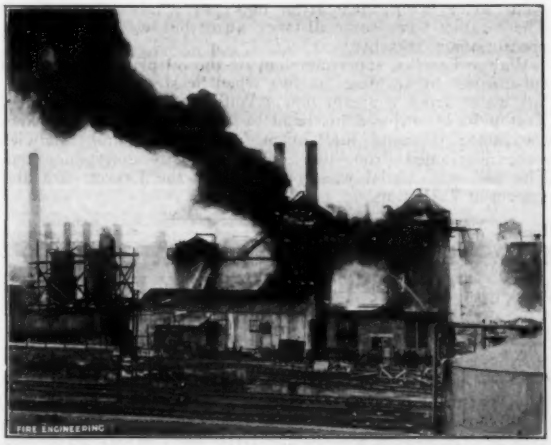

No. 2
Pipe to which generator was connected
Location of generator on bridge between No. 3 and No. 4
No. 4
Location of hose from generator to pipe - 1 length of hose used
No. 3

Agitator No. 2 of Beacon Oil Company Showing How Foam Generator and Line Were Placed in Extinguishing Fire.

The agitators were steel cylindrical tanks lined with lead and capped over on top, out with vents and small openings for escape of gas. There are vents on top known as explosion doors. The agitators are used in the final refining or "washing" process in the manufacture of commercial gasoline.

How the Fire Was Fought

The first alarm received by the Everett Fire Department for the blaze was recorded at 5:40 a. m. from Box 36. Chief Ham ordered a second alarm sounded at 6:01 a. m. An unauthorized call was sounded by a citizen from Box 34 at 7:25. Chief Ham had 84 firemen at work and was aided in directing the men by Assistant Chief George E. Hatch and Acting Deputy Chief John A. Cameron. Fifteen water lines were used, principally to wet down the outside of the burning agitators and to cool down nearby oil tanks. The hose in use was all 2½ inch double jacketed cotton rubber lined hose. Besides the lines from motor pumping engines which connected to post hydrants having a pressure of 50 pounds there were lines



Beacon Oil Fire Showing Agitators Numbers 1, 2 and 3 Afire. Agitator No. 2 in the Center.

used by the oil company fire brigade from yard hydrants for which pressure was furnished by steam pumps in the oil plant.

Apparatus in Service

The apparatus in service was as follows: From the Everett Fire Department, one 1,000 gallon Seagrave motor pumping engine and two 750 gallon Maxim motor pumping engines; from the Chelsea Fire Department, one 750 gallon Seagrave motor pumping engine; and from the Boston Fire Department, two 750 gallon American-La France motor pumping engines. The Foamite Engine of the Boston Department was sent to the scene and held in reserve for emergency service. Two Eastman deluge sets were used by the Everett firemen.

An Amdyco continuous foam generator which was being tested at the Factory Mutual Laboratory in Everett was brought to the plant in the morning and this together with The Boston Foamite engine was held in reserve for emergency use in case the fire spread outside of the dikes.

The Boston officials of the Foamite-Childs Corporation state that in the afternoon Foamite lines from a nearby yard Foamite hydrant were siamesed into a 35 foot length of 2-inch iron pipe and carried up over Agitators 4 and 3 and over an iron runway to the No. 2 Agitator, and that this pipe was put in through one of the explosion doors and the Foamite liquid then pumped through these Siamesed lines with the pipe acting as a mixing chamber and pouring the Foamite down inside the Agitator on top of the burning gasoline.

A. C. Whiting, of the Boston office of the Amdyco firm, states that in the afternoon when the fire was still burning

within the No. 2 Agitator, a line was laid in from a continuous foam generator of the Amdyco Corporation. The hose used was regular fire department hose, 2½-inch cotton rubber lined, and was connected to a yard water hydrant. The Amdyco generator connected to this hose was placed on the iron bridge between Agitators 3 and 4. A 50 foot length of hose led from generator to a 2-inch iron pipe about 20 feet long. This pipe was stuck into an explosion door on top of the Agitator and played a stream onto the fire which was extinguished in less than two minutes after the line began operating. The stream was kept in service for approximately 15 minutes and water lines were played against the outside of the tank for some time longer. According to Chief Ham it was this foam stream that extinguished the fire in Agitator No. 2.

The cans of Amdyco powder used had just arrived in Boston and were rushed to the scene from the railroad freight yards. Chief Ham stated that the operation of this stream was highly efficient. Mr. Whiting was in charge of the Amdyco equipment used at the fire.

Other Fire Chiefs Present

Among the fire department officials who visited the scene of the fire were Chief Daniel F. Sennott, of Boston; Chief David M. Hudson, of Chelsea; Chief Frank C. Newman, of Melrose; Chief Graham, of Wakefield; and Chief Patrick J. Hurley, of Holyoke.

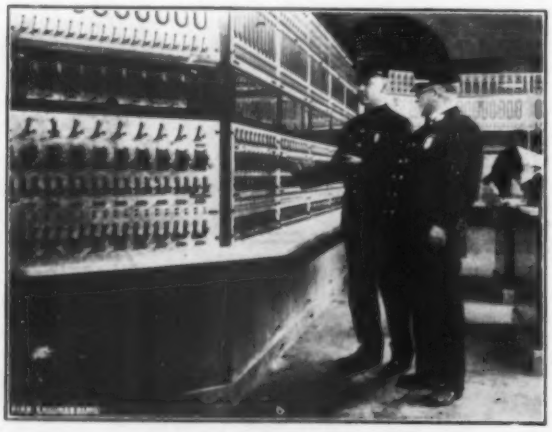
The employes of the Beacon Oil Company who aided the firemen were directed by Chief Matthews, of the plant fire brigade. A strong westerly was blowing at the time of the fire. Oil was pumped away from nearby tanks and a number of tank wagons in the yard were hastily driven away from the scene after being filled from tanks to windward of the fire. These tanks were some distance away but were emptied as a precautionary measure.

Walter Perellis, superintendent of the oil plant, suffered painful injuries by scalding his feet when he stepped into a pool of hot water from a steam pipe. William Kehoe, of Engine 32, Boston F. D., injured his hand by getting it caught in part of the motor pumping mechanism. Hot coffee and sandwiches were distributed from the Salvation Army emergency truck. The "all out" signal was sounded over the Everett fire alarm system at 7:21 p. m.

NEW FIRE ALARM HEADQUARTERS POSSESSES FINEST OF EQUIPMENT

Boston's Handsome Building Ideally Situated in the Fenway—Completely Isolated and Fireproof—Future Taken Care Of

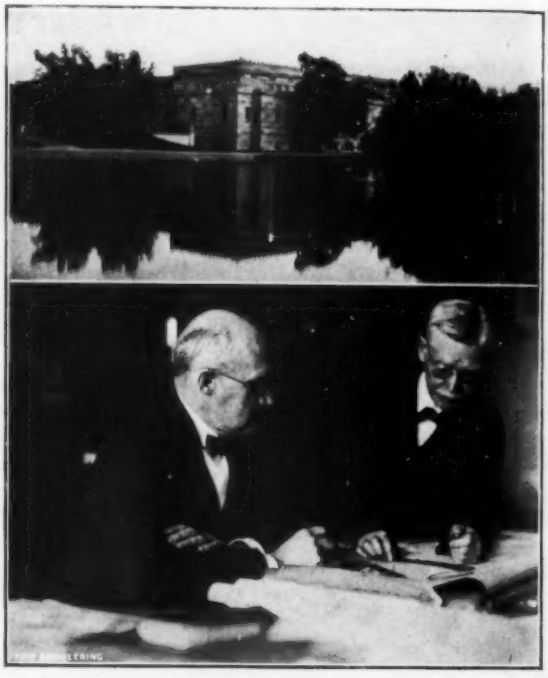
THE new central fire alarm station of the Boston Fire Department is now completed and in service. This magnificent building situated in The Fenway at the head of Westland Avenue represents the latest ideas in fire alarm headquarters installation and reflects credit upon the city, architect,



Interior of New Boston Fire Alarm Office. Fireman Edward F. Rooney at Left; Lieut. M. J. Daley at Right

builders, and the Gamewell Company which furnished and equipped the structure with the most modern wiring, instruments, and apparatus in existence.

The plans for the station were first suggested by the late Chief John O. Taber, of the Boston Fire Department, who had the backing and support of Mayor James M. Curley. The land was staked off in July, 1923, and in April, 1924, the first shovelful of earth was turned. Richard Shaw, of the firm of O'Connell and Shaw, Boston architects, prepared the design of the building. The corner stone was laid in July, 1924, and the structure was dedicated in September, 1925. At the inspection



Upper, New Boston Fire Alarm Office from Across the Muddy River. Lower, Superintendent of Fire Alarms Geo. L. Fickett, Left, and Assistant Superintendent Richard Donahue, Right.

held December 16 it was announced that the station would be in operation by January 1, 1926.

Thomas D. O'Connor was the building contractor. The exterior is variegated Indiana limestone and the design is Italian renaissance. The entrances are at the sides. In the centre top of the front elevation there is a sculptured reproduction of the seal of the city of Boston.

Equipment of the New Station

The equipment of the new station includes the following: 100 box circuits, 30 primary alarm circuits, 20 secondary alarm circuits, 160 circuit storage battery switchboards, 3 box line recording sets each consisting of 6 four circuit pen shearing registers, 6 take up reels, 6 time stamps; one box line recording set consisting of 7 four circuit pen shearing registers, 7 take up reels, 7 time and date stamps, two primary alarm recording sets each consisting of 3 five circuit Nonpareil registers, 3 time and date stamps, 3 take up reels, one common recording set for secondary alarm circuit, one four circuit register, one take up reel, one time and date stamp, two 4 dial, 4 number Gamewell ball bearing transmitters, one reverse current 4 dial transmitter, gang switch for controlling duplicate transmitters, 30 circuit manual key, primary and secondary alarm circuits, gang switch for throwing in reverse current key on gong circuits, one protector board, one 800 wire terminal board, telephone jacks on all circuits, 6000 cells F. I. P. battery, two motor generators, one gasoline generator, battery cross connecting terminals in operating room, incoming cross connecting board for 260 circuits, radio set for communicating with fire boats, recording apparatus for superintendent's office, private branch telephone exchange with 12 incoming trunk lines, and 80 outgoing telephone circuits.

Fire Alarm Boxes and Conduits

The present number of fire alarm boxes in service is 1350 and the capacity of the office is for 2000 boxes with an ultimate capacity for the building of 5000 boxes. There are 56 miles of number 16 wires used in the station. There is space in the battery room for 15,000 cells. This room is artificially ventilated and kept at an even temperature the year around.

(*Continued on page* 156)

THEY STOOD THE TEST

AT GALVESTON

THEY WILL DO THE SAME FOR YOU

Pumps ran continuously for 24 hours

BOARD OF COMMISSIONERS

Jan. 8, 1926

The Seagrave Corporation,
Columbus, Ohio.

Gentlemen:-

It is a pleasure to advise you of the result of the 24 hour test which was recently conducted with the two Seagrave Pumping Engines purchased from your company.

After having used several makes of fire apparatus, we purchased two Seagrave Pumping Engines and before accepting them we decided to run an endurance test of 24 continuous hours in order to satisfy ourselves that these machines were capable of performing any job of pumping that we might need of them.

These two Seagrave Centrifugal Pumps were run for 24 hours and both averaging a discharge of 625 gallons per minute for the entire period. The motor speed during this test was approximately 1125 R.P.M. They were operated from draft and absolutely no trouble of any nature was experienced during the test.

Previous to the 24 hour endurance test both engines were subjected to a high lift test and pumped well over their guaranteed capacity when operating from a lift of 10' feet. These preliminary tests, together with the 24 hour test, made a run of approximately 30 continuous hours without a single shut down.

Their performance was more than satisfactory and we believe they could go through the same test at any future fire without any mechanical trouble whatsoever.

Yours very truly,

R.P. Williamson
Commissioner, Police & Fire.

RPW/P

Motors ran continuously for 30 hours

The letter above, from Commissioner Williamson, of Galveston, explains the nature of the twenty-four hour endurance test recently run on two 600 Gallon Seagrave Pumping Engines.

THE FIGURES BELOW GIVE THE HIGH-LIGHTS OF THIS DEPENDABLE SEAGRAVE PERFORMANCE

Each Motor fired approximately 4,860,000 times.
Each Piston traveled more than 300 miles.
Each Crank-Shaft made approximately 1,620,000 revolutions.
A Six-inch pipe 232 miles long would be required to hold the water pumped by these two engines.
The water pumped during this test would fill a line of 2½-inch fire hose reaching from the Great Lakes to the Gulf.

LET YOUR NEXT ONE BE A SEAGRAVE

THE SEAGRAVE CORPORATION

COLUMBUS, OHIO

BOSTON
NEW HAVEN
PHILADELPHIA

PITTSBURGH

CHICAGO
KANSAS CITY
DALLAS

BIRMINGHAM

SEATTLE
SAN FRANCISCO
LOS ANGELES

Beat the Fire to it with an Erick Electric Siren

For **Volunteer Fire Departments** in towns of from 300 to 5,000 population, there isn't a Siren or a system in the world to equal the Erick. Night and day—year in and year out—it offers best protection to lives and property.

30 Days Free Trial in Your Own Town

That's our method of proving the Erick Electric Siren to be the fire alarm you need in your town. Place it side by side with the best of all other sirens for 30 days and then be your own judge—decide for yourself whether you want to keep it or not.

"When fire is discovered, call Central from nearest phone."

The Erick is the only Siren using one big whistle on a powerful 3 and 5 h.p. motor which throws its sound evenly in all directions—louder and more penetratingly than all others. Many special features including special designed hood and screen that protects siren from rain, storm, and nesting birds.

"The Erick Electric Siren Shrieks its call of danger to every nook and corner of your town—quick, sure and dependable."

"Central presses button connected to Sirer."

Write for full information and details of liberal 30 Day Free Trial Offer

ERICK ELECTRIC SIREN CO., INC.
95 South Wabasha Street
ST. PAUL, MINN.

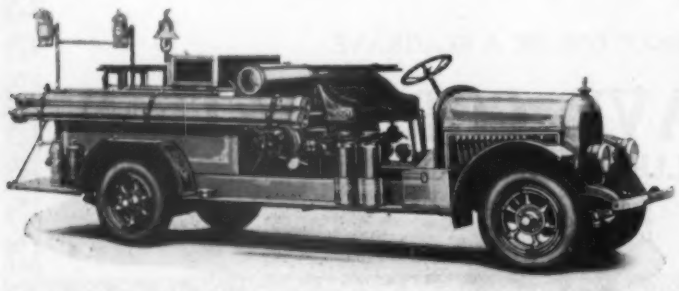
Announcing the Cosmopolitan

The new LaFrance Brockway Cosmopolitan triple combination pumper represents the most modern fire protection for the smaller community.

Its low, powerful chassis insures roadability at high speed. Its six cylinder motor insures quicker acceleration, more power and more speed, thereby greatly increasing the range of efficiency.

The 350 gallon pump is built in accordance with the famous American-LaFrance rotary gear principle and can be depended upon for effective fire service.

Communities needing an efficient fire protection at a price they will gladly pay, will find it to their advantage to investigate the Cosmopolitan.



AMERICAN-LAFRANCE FIRE ENGINE COMPANY, INC.
ELMIRA, N. Y.
Sole Distributors

BRANCHES

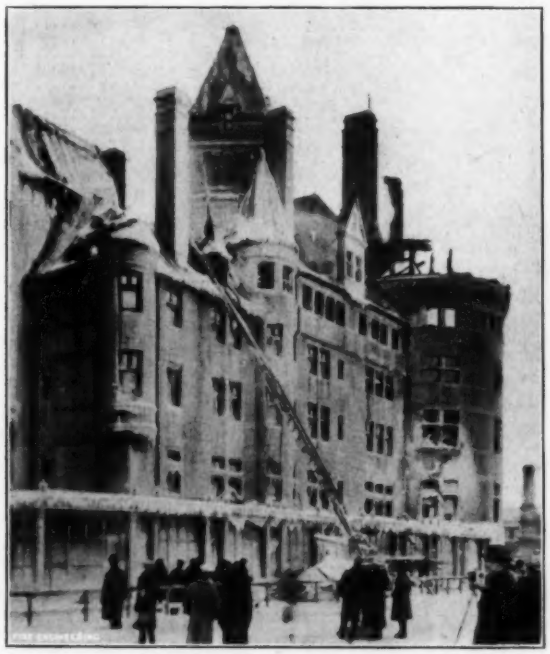
New York	Pittsburgh	Denver	San Francisco
Boston	Chicago	Minneapolis	Washington
Atlanta	Dallas	Los Angeles	Portland

HOTEL FIRE BROUGHT UNDER CONTROL AFTER TWO MILLION DOLLAR LOSS

Great Chateau Frontenac at Quebec Loses Old Wing in Big Blaze—Burnings of the Week

A PORTION of the Chateau Frontenac, designated as the "Old Wing," overlooking the St. Lawrence River at Quebec, Canada, was destroyed by fire on January 14. The flames broke out at 5:30 p. m., while the 300 guests were in their rooms, and threatened to spread rapidly to other parts of the vast hostelry, and involve the entire structure. Pending the arrival of the fire department, employes of the hotel undertook to check the fire, but a stiff east wind forced the flames down into the lower stories of the five-story structure and compelled them to abandon their efforts.

On the arrival of the department, orders were given to clear the hotel of all occupants, and all the guests were removed safely. One was overcome by smoke, but was restored. It was not long after the guests were taken to other hotels when the flames had eaten their way toward the west wing in spite of the efforts of the entire fire department, which had been called out on a third alarm. The fire is supposed to have broken out in the old tower and required five hours of desperate work on the part



Ruins of Old Wing of Chateau Frontenac, Great Quebec Hotel, the Portion that Went Up in Flames

of the department to subdue it. The new portion, including the lofty eighteen story central tower, was saved, but the damage to the great building is estimated at approximately $2,000,000. The new part constructed of steel and concrete baffled the flames, and was very little damaged.

When the fire department first reached the scene of the fire they found a strong east wind driving the flames toward the new wing on which stands the tall tower. When the dome of the old wing toppled and fell, many of the burning beams landed on the Dufferin Terrace of the hotel, while others crashed through the roof of the summer garden near the main tower. By 10 p. m. the firemen had the flames under control. The hotel manager at that hour reported that not a single piece of baggage had been lost by the fire. The fact that the flames were not allowed to spread beyond the walls of the Chateau, in spite of the strong wind, is due to the efforts of the Quebec Fire Department. Five firemen were seriously injured and taken to the hospital. They were thrown from a considerable height by the crashing of a ladder on which they were perched.

The Chateau Frontenac was built in 1893 by the Canadian Pacific Railroad, and has been considered one of the handsomest and most luxurious hostelries in the world. It is of the French Baronial style, mainly of light red brick, with copper roofs. It has castle walls, ramparts, and a medieval court yard, although the rooms are ultra modern in every detail. The structure stands on the north end of Dufferin Terrace, the approximate site of Fort St. Louis, which was built by Champlain in 1620, and burned down in 1834.

WHAT'S BURNING

From reports covering the United States and Canada, the estimated losses of fire during the week ending January 29, 1926, aggregated $8,949,000, as compared with $10,973,300 for the corresponding week in 1925. The total is derived by adding to the amount in the list given, which includes only those of $15,000 loss and over, a sum equal to twenty per cent of that amount, statistics showing that the smaller fires average about that proportion of the larger. Losses for the week ending February 5, follow in their right order.

The figures published in this list, compiled from telegraphic reports of fires occurring during the weeks, are based on estimates made at the time, which are necessarily hurried and are subject to latter investigation and consequent correction. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousands.

EAST ST. LOUIS, ILL.—Wooden warehouse occupied by Elliot Frog and Switch Co., 301 S. Main street..... 75
PERU, IND.—Storage house of Peru Milling Co. destroyed—Wilkinson & Rhinehart lumber yard—total..... 30
SPRINGFIELD, MICH.—The Towers Dixie Highway roadhouse destroyed..... 35
WAHJEMEGA, MICH.—Cottage of Michigan Farm Colony destroyed..... 70
CHARLOTTE, N. C.—Myers Hardware store..... 10
LIVINGSTON, TEX.—Four business establishments destroyed. 10
FAIRMOUNT, W. VA.—Murphy-Deveny building destroyed.... 65
Wolfe-Leader store, Wise meat market—total..... 33
MESSICK, IND.—Elevator of Charles Byrket destroyed..... 10
INDIANAPOLIS, IND.—Buildings on farm of Chris Traue, west of Bluff road, destroyed..... 10
FAYETTE, IDAHO—Central school, two-story brick..... 45
EVERETT, MASS.—Two units of Beacon Oil Co. plant destroyed..... 95
LAKEWOOD, N. J.—Hubert House—property of Newman School..... 55
OGDENSBURG, N. Y.—City Hall and adjoining property..... 295
CAMBRIDGE, MASS.—Four-story brick building, occupied by 3 business concerns (Kendall Square district)..... 145
ITHACA, N. Y.—Odd Fellows State Home farmhouse unit destroyed..... 10
ATHENS, ALA.—Cotton warehouse of Hightower & Garth destroyed..... 270
LOS ANGELES, CALIF.—Keta Kappa Epsilon fraternity house, West 23rd St. and St. James Park, destroyed..... 95
NAPPANEE, IND.—Building of Independent Investment Company destroyed..... 20
LOUISVILLE, KY.—Lynn-Kerr & Company, 525 W. Main Street also three adjoining structures..... 65 50
ROSEBUSH, MICH.—Two business blocks (brick) destroyed. 15
JEANETTE, PA.—Store and apartment building of Samuel Slater destroyed..... 15
PASSAIC, N. J.—Paradise Piano Company and seven other tenants..... 20
MONESSEN, PA.—Twelve buildings destroyed in business district..... 345
PLAINFIELD, N. J.—Farm building of Lawrence Carrar, Watchung..... 10
FALL RIVER, MASS.—Wooden store, office and tenement building..... 15
BEANFORD, CONN.—Home of Howard Marlin at Pine Orchard destroyed..... 45
CLEVELAND, OHIO—Monreal Undertaking Company garage and three cars..... 24
DUNNVILLE, ONT.—Tobacco warehouse of J. M. Jewjurat destroyed..... 10
ATHOL, MASS.—Large barn and contents, owned by Mrs. E. M. Kasto..... 10
MAHONEY CITY, PA.—Two houses owned by L. Carlson.... 10
SHARON, CONN.—Private garage and two autos owned by F. A. Snupheimer..... 12
CANSIETO, N. Y.—Large barn owned by R. W. Miller..... 10
NEWFANE, N. Y.—Home of A. Perry destroyed..... 10
PRATTSBURG, N. Y.—Cheese factory of Thos. McMonimon destroyed..... 10
WATTS FLATS, N. Y.—Garage and live stock of A. E. Hurlburt..... 10
POUGHKEEPSIE, N. Y.—Five business concerns in Ryan Block..... 85
HOBOKEN, N. J.—Plant of Hoboken Box Company..... 95
ONAWAY, MICH.—Plant of American Wood Rim Company destroyed..... 490
EAST ST. LOUIS, MO.—Two stock barns owned by Fox & Strake Company and R. W. Browning Company at National Stock Yards..... 70
LAKE STEVENS, WASH.—Rucker Sawmill destroyed..... 195
SCOTTSBURG, IND.—Machine shop of Interstate Public Service Company..... 35
EDDYVILLE, IOWA.—Niemeyer Store..... 45
CRESTON, IOWA.—Home of George Hoffman..... 15
ROXBURY, MASS.—Factory building of Whistle Company..... 15
TYRONE, PA.—Methodist Home of Central Pennsylvania Conference..... 95
RICHMOND, VA.—Mayo Building..... 45

HUNTINGTON, W. VA.—Plant of Standard Ultramarine Company 18
CHETEK, WISC.—Warehouse and contents of Baron County Canning & Pickling Company destroyed..... 35
JACKSON, TENN.—Three buildings in business district..... 30
NEWBURYPORT, MASS.—Two story building occupied by Fisher & Company..... 30
RIVERSIDE, N. Y.—Grain warehouse of T. J. Smith & Son destroyed 95
DAYTONA BEACH, FLA.—Property occupied by Triple Cities Ice Cream Company, 130 Myrtle Street..... 45
SIOUX CITY, IOWA—Building occupied by Schmoeler & Mueller Piano Company, also offices of doctors..... 240
SPENCER, MASS.—Town Hall destroyed, adjoining property damaged 55
WHITE PLAINS, N. Y.—New York Dress Piece Store and adjoining property, 123 Main Street..... 145
BIRMINGHAM, ALA.—Exclusive Home Furniture Company, Ave. H. & 20th St..... 70
BIRMINGHAM, ALA.—School building destroyed..... 200
PINE BLUFF, ARK.—Seed house of Planters Cotton Seed Oil Mill 45
WICHITA, KANS.—The Koxy Klosure Manufacturing Plant.. 100
EAST BROOKFIELD, MASS.—Business establishments including Court House..... 95
TRAVERSE CITY, MICH.—First Christian Church destroyed 45
WEST DULUTH, MINN.—Coal Crushing Plant of Zenith Furnace Company 70
PASSAIC, N. J.—Liggett Building, Main Avenue & Jefferson Street 20
DUBOIS, PA.—Mill property of Dinger Milling Company..... 45
NEWARK, N. J.—Newark Reliner & Patch Company..... 15
ARLINGTON, MASS.—Crescent Gardens—3-story business block 45
FRESNO, CALIF.—Rainbow Ballroom, 1725 Broadway destroyed 15
TROY, KANS.—Two story brick school building destroyed... 95
DOWNVILLE, MD.—Barn owned by William Easterday destroyed 15
INDEPENDENCE, MO.—Garage and planing mill destroyed.. 145
PAGELAND, S. C.—Chester & Lancaster Depot 35
BAYONNE, N. J.—Three-story building at Avenue C (520) destroyed 15
BRUNSWICK, ME.—Business structure occupied by stores and offices 120
MILWAUKEE, WISC.—Matthews Building, Grand Avenue & Third Street 45
MADISON, WISC.—Building at 937 East Gorham Street destroyed 30
BRANFORD, CONN.—Home of J. H. Martin, Pine Orchard, destroyed 45
HAVERHILL, MASS.—Academy of Music and Roberts & Dube Shoe Factory 240
CAMBRIDGE, MASS.—Four-story building occupied by business concerns 45
PORTLAND, IND.—Weller Brothers business block destroyed.. 990
CANAAN, N. Y.—Barn owned by L. L. Willis destroyed..... 15
TOLEDO, OHIO—Apartment House..... 15
AZTEC, N. M.—Neltzel Garage destroyed with contents 15
WILSON, N. C.—Davis Building 45
RED LION, PA.—Cigar Factory of Scott, Frey & Company..... 15
PROVIDENCE, R. I.—Inlaid Company, 1058 Broad Street... 35
GALVESTON, TEXAS—Business establishments, 22nd & Postoffice Sts. 15
SUPERIOR, WISC.—Business property occupied by Averbook Company, also Ansell Brothers, destroyed..... 25
WINDSOR MILLS, QUEBEC, CANADA—Large portion of village structures 490
MOIRA, N. Y.—Four buildings in Eddy Block..... 45
NEWARK, N. J.—Factory occupied by Miller & Finkerstein Company 30
TENAFLY, N. J.—Experimental laboratory of Dr. H. Ticehurst 15
ORADELL, N. J.—Store and adjoining property..... 15
LINCOLN, N. Y.—Store owned by Church & Ridley 15
BERWICK, PA.—Three business houses on Walnut Street... 15
FITCHBURG, MASS.—Rome building destroyed 95
SO. BOSTON, MAS.—Building at 332 Summer Street..... 35

From reports covering the United States and Canada, the estimated losses of fire during the week ending February 5, 1926 aggregated $7,284,000, as compared with $6,396,300 for the corresponding week in 1925:

ARKADELPHIA, ARK.—Grain elevator of Arkadelphia Milling Co. 295
REDWOOD CITY, CALIF.—Plant of Rubber & Asbestos Works 195
WATERBURY, CONN.—Factory of Waterbury Fastener Co., destroyed 145
PATERSON, N. J.—Market Street apartment house..... 145
CEDAR RAPIDS, IOWA.—Plant of Lattner Co., destroyed.... 45
MASON CITY, IOWA.—Scott Market destroyed..... 20
WESTBROOK, ME.—Parish House, West End Congregational Church 15
BILLINGSPORT, N. J.—Club houses destroyed..... 65
CHESTER, PA.—Golden Rule Co.'s Store, 41 W. 3rd Street.. 15
WEST COLLINGWOOD, PA.—Several dwellings on Sloan Ave. 15
FARMINGTON, W. VA.—Plant of Hygeia Mfg. Co..... 45
TAUNTON, MASS.—Taunton Inn destroyed..... 45
GREENWICH, CONN.—Home of Wm. Hodge at Round Hill destroyed 45
LONG BRANCH, N. J.—Three-story frame building..... 20
MT. MORRIS, N. Y.—Plant of Galbraith Milling Co., destroyed 45
AUBURNDALE, MASS.—Home of R. C. Taft destroyed..... 15
FALL RIVER, MASS.—Building in Highland Section 90
E. RUTHERFORD, N. J.—Plant of Standard Insulation Co.... 70
NEWARK, N. J.—New England Button Co. plant..... 30
LOXA, ILL.—Grain elevator destroyed..... 30
FALL RIVER, MASS.—Moore Building burned..... 15
TYRINGHAM, MASS.—Rake factory destroyed..... 15
GREENFIELD, N. Y.—House of S. H. Sarsberger, Maple Grove Farm 20
BUFFALO, N. Y.—Plant of Modern Laundry Co..... 155
CINCINNATI, OHIO.—Boye & Emmes Machine Tool Co..... 195
FINLEYVILLE, PA.—Department store..... 35
PITTSBURG, PA.—Allegheny Packing & Provision Co. Building 20
MOUNDSVILLE, W. VA.—Property of W. VA. State Penitentiary 45
BEAVER DAM, WISC.—Farm House of C. J. Schoenfeld..... 15
HARTFORD, CONN.—Building owned by J. J. Byrnes and J. Missett 45
ATLANTA, GA.—Dixie Bargain House destroyed..... 45
CHESTER, ILL.—Garage building of Boedeker-Siegfried Co.... 55
LAKE MANAWA, IOWA.—Pavilion destroyed..... 70
DAVENPORT, IOWA.—Morris Citron Shoe Store..... 20
PATERSON, N. J.—Riverside section..... 195
ADRIAN, MICH.—Y. M. C. A. Building destroyed..... 15
DAWSON, MINN.—Trotter Brothers Garage destroyed..... 15
SAULT STE. MARIE, ONT.—Noble block..... 35
WYDNOR, PA.—Four houses destroyed..... 15
POTTSTOWN, PA.—Garage of Dearborn Inn..... 70
CONNELLSVILLE, PA.—Two-story building of Fre dom Oil Co. 15
ALTOONA, PA.—Methodist Home for Aged destroyed..... 110
SHERIDAN, N. Y.—Barn and garage of Martin Sirkowski destroyed 15
SHELBY, MONT.—Equity Grain Elevator..... 30
RIDGEWAY, PA.—Building occupied by business concerns and owned by A. Battaglia—total..... 150
NEW VIENNA, OHIO.—Opera House Building destroyed..... 45
BETHLEHEM, PA.—Houses destroyed..... 40
NEWTON, CONN.—Crowe Keane Button Co., factory destroyed 15
ORANGE, CONN.—House destroyed..... 15
GLEN COVE, N. Y.—Department Store destroyed..... 95
EASTABOGA, ALA.—School building destroyed..... 20
INDIANAPOLIS, IND.—Home of Jesse D. Hamrick destroyed. 15
SOUTH BEND, IND.—Office building of Standard Oil Company 290
HOLSTEIN, IOWA.—General merchandise store of E. Y. Wigdowsky 25
FALL RIVER, MASS.—Factory of Fall River Mattress Company 45
JACKSON, MICH.—Consumers Ice Company destroyed..... 15
NORTH BRANCH, MICH.—Melanie Hotel and Fruit store of L. Bopra 15
BROOKLYN, MICH.—Property of Hart & Howell Company destroyed 70
TRAVERSE CITY, MICH.—Hannah & Lay Milling Company destroyed 70
SYRACUSE, N. Y.—Four story mill of Paragon Plaster Company 45
HUDSON, N. Y.—Barry House on State Road destroyed..... 20
WARREN, OHIO.—Braden Building and 8 adjoining business establishments 195
DAYTON, OHIO.—Plant of Marble Company destroyed..... 20
TORONTO, ONT.—Warehouse occupied by Bell Brothers, 398 Danforth Ave. 20
E. PITTSBURGH, PA.—Two buildings destroyed..... 155
WARREN, PA.—Plant of Sheffield Glass Bottle Company destroyed 75
PITTSBURGH, PA.—Three story brick building, 211 Diamond Street 75
BROWNSVILLE, TENN.—Plant occupied by Covington Cotton Oil Mill and owned by National Cotton Seed Oil Products Corp. 70
LOOGOOTEE, IND.—Walker Flour Mill together with contents 45
SPRINGFIELD, ILL.—Hay Building, 6th & Washington Sts.. 95
GLOUCESTER, MASS.—Business and dwelling block, Main Street 15
NORFOLK, VA.—Warehouse No. 1 of Farmers Manufacturing Company destroyed 55
SPRINGVIEW, NEBR.—City Theatre and Lawton Hotel..... 15
COBALT, ONT.—Hunter block destroyed..... 120
OIL CITY, PA.—Murray-Brumbaugh Furniture Store, Seneca Street 15
BETHLEHEM, PA.—Large apartment house destroyed..... 60
EAST HAMPTON, MASS.—Store of Helen Graffes' and adjoining property 25
VICKSBURG, MISS.—Saenger's Alamo Theatre..... 15
PERTH AMBOY, N. J.—Nine stores on New Brunswick Avenue destroyed 220
OPP, ALA.—Plant of Opp Ice & Fuel Company destroyed.... 35
LOS ANGELES, CALIF.—Yard of Hayward Lumber Company, San Ferando Rd. 195
DANVILLE, ILL.—Cramer & Norton Department Store destroyed 85
ELY, NEVADA.—Troy Power Laundry destroyed..... 45
NORTH ADAMS, MASS.—The Casino Bowling Alleys..... 25
TOPTON, PA.—Enameling and pattern building of Topton Foundry & Machine Company destroyed..... 145
HORNELL, N. Y.—Greenhouse and power plant of C. G. Locke destroyed 15
HORNELL, N. Y.—Barn and garage owned by L. A. Wasserburg destroyed 15
GENESEO, N. Y.—Property owned by Joseph Fonti destroyed 15
MT. MORRIS, N. Y.—Galbraith Milling Company destroyed.. 40
WATERLOO, N. Y.—Residence owned by K. C. Hammond destroyed 15
BUFFALO, N. Y.—Midland Paper Box Company factory destroyed 15
PHILADELPHIA, PA.—Building at 930 Arch Street..... 295
CHICAGO, ILL.—Robbins Building, 173 Wacker Drive..... 120
MESA, ARIZONA.—Pew Brothers Grain Warehouse..... 20
ALEXANDRIA, LA.—Weil Building, Third Street, owned by Bertrand Weil 55

Mrs. Mulcahey Critically Ill

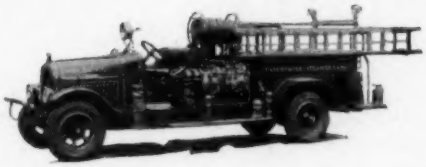
Mrs. Mulcahey, wife of J. J. Mulcahey, secretary of the International Association of Fire Engineers, and chief of the Yonkers, N. Y., Fire Department, is critically ill in that city. A specialist from New York City on Saturday, February 6, performed an operation amputating her leg above the knee, and Mrs. Mulcahey has not rallied as was hoped, occasionally sinking into coma.

BUFFALO

ENTERPRISE STEAMER CO., No. 2

ORGANIZED JUNE 11TH, 1872

INCORPORATED JULY 24TH, 1884



REGULAR MEETING
LAST TUESDAY EVENING
IN EACH MONTH

WALDEN, N. Y., January, 8, **1926**

Buffalo Fire Appliance Corp.,
44 Central Avenue,
Buffalo, N. Y.

Gentlemen:-

When this Company was in the market for a piece of Fire Apparatus we investigated the various makes and types of trucks and the decision was to purchase a Buffalo-Larrabee 350 Gallon Triple Combination and the order duly placed.

On delivery the Underwriters test was passed with a large margin of safety and the truck was immediately accepted and placed in service.

To say we are pleased is to put it mildly. The outfit cannot be surpassed for performance, construction, and finish, and is complete in every detail.

If we were again in the market we would buy a Buffalo Larrabee 350 Gallon Triple Combination and do not hesitate to recommend this make and type of truck to anyone.

We will be glad to demonstrate the truck to anyone whom you wish.

Very truly yours,

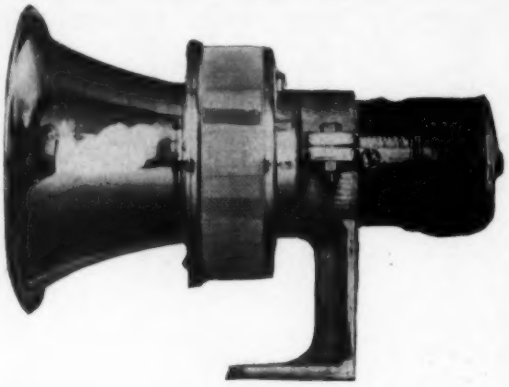
Edward Oliva

Foreman.

BUFFALO

C. A. M. Sirens

are better sirens



They are designed solely for emergency signalling and are unsurpassed for ruggedness of construction, simplicity and accessibility of parts.

They are built to give service and to endure.

Bronze is used where bronze serves best; likewise with other metals. C. A. M. Sirens may well be classed as aristocrats in the siren field. They are "quality" sirens.

If you are in the market for the best that can be built in the way of electric fire apparatus sirens, get in touch with us. Write for bulletins.

C. A. M. Manufacturing Company

802 Humboldt Bank Building San Francisco, California

Fire fighting without a water supply is effectively accomplished with this "DELUGE" 4-Tank Chemical Truck. Superior features of "DELUGE" Tank construction have simplified and greatly increased the efficiency of chemical fire fighting.

THE PROSPECT FIRE ENGINE CO.,

Prospect, Ohio

"FORTIFY FOR FIRE FIGHTING"

INDUSTRIAL FIRE BRIGADE SECTION

Fire Protection and Fighting System at the Plymouth Cordage Company

By JOHN H. DAMON
Chief of Plymouth Cordage Fire Department, Plymouth, Mass.

FIRE is a menace in all large plants and causes the management considerable anxiety. This is especially so in a cordage plant with its inflammable raw materials in storage and in process.

Many disastrous mill fires have come from entirely unexpected conditions, such as unsuitable weather for working stock, and accidents, so that one can never feel sure of being free from the danger of a bad fire. The case of one very large plant that had three possible sources of water supply for fire protection, every one of which failed in an emergency, with a large resulting loss, may be cited as an illustration of how the best-laid plans may go amiss.

At Plymouth Cordage the management has not spared expense in protecting the interests of all; suggestions of able insurance engineers have been carried out, and the plant appears in good condition to prevent fires or to fight them. The old saying, "Prevention is better than cure," is never nearer the truth than when used in connection with fire. Smoking is prohibited in the mills and mill yards, and so is the carrying of loose matches. Penny-in-the-slot Safety Match Machines are located at the mill entrances, which minimize the carrying of ordinary matches. During shut-down periods an ample force of watchmen makes hourly trips which cover the entire premises. Hazardous processes such as the use of pickers are in isolated rooms. Care is taken to keep the premises free from rubbish. Oily rags are kept in metal containers. The help is very well informed about the danger from fire.

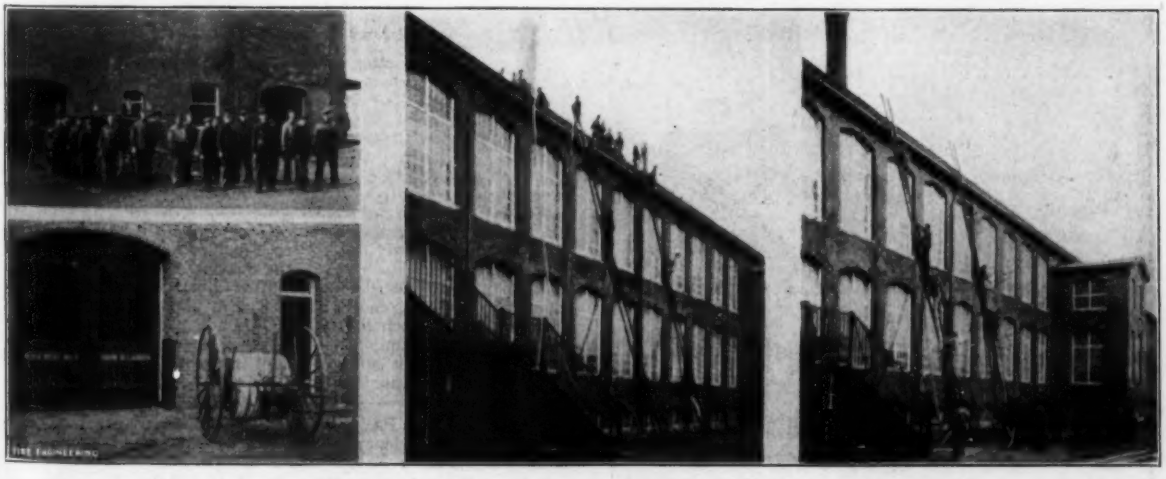
For fire fighting there are installed on the premises four Underwriter Pumps of a combined capacity of 3,700 gallons per minute, which would supply some fifteen large hose streams. These pumps have ample suction supply from ponds, and serve through large mains sixty hydrants scattered about the yard. Most of these hydrants are in houses equipped with hose, nozzles, axes, bars, etc. Besides these there are eight hose reels, each with five hundred feet of hose, the total amount of fire hose being 8,500 feet. The hydrant system contains a number of subdividing valves, so located that in the event of a bad break the crippled section can be cut out, leaving the pumps available on the remainder.

A large main from the town of Plymouth connects, through check valves, into the yard mains and keeps the ordinary static pressure on the sprinkling systems. This town main is also available for immediate use to supply a few fire streams without starting the fire pumps. If this town pressure is reduced from a break or other shut off in the streets, two of the fire pumps automatically come onto the mains.

The buildings are 95 per cent sprinklered and require about 18,500 sprinkler heads. In the remaining five per cent of the buildings, the construction is either non-combustable or sprinklers are under consideration. The storehouses being unheated have thirty 6-inch dry-pipe valves for their sprinklers. Two hundred fire doors are installed for the various cut-offs. Electric apparatus is supplied with tetrachloride extinguishers. There is also some foam equipment, which with over 300 small hose outlets through the mills, water barrels and buckets, 2½-gallon extinguishers, ladder equipment, etc., seems to furnish adequately all essential apparatus. The investment in fire protection and fighting equipment is approximately $150,000.

Plymouth Cordage Company's Fire Protection and Fire-Fighting System.

Left, Two of Four Fire Pumps, Delivering 3,700 Gals. per Minute to Sprinklers and Hydrants. Right, Hose Houses at Hydrants, Fully Equipped with Hose, Nozzles, Spanners, Lanterns, Axes and Bars.



Plymouth Cordage Company's Fire Brigade at Drill.

Upper Left, Ladder Company at Drill. Lower Left, One of Eight Hose Reels to Supplement Hose Kept at Hydrants. Center, Four Hose Streams on Roof. Right, Carrying Hose Up Ladder.

The company maintains an organized fire department, men selected from the mechanical rooms, who live near the plant. These men are drilled weekly, except in winter, on hose lines to encourage initiative, and to familiarize them with the available apparatus and the buildings. A secondary call crew reports at an alarm of fire to assist the regular drilled men and take over the work of safeguarding the stock and machinery, particularly from water damage. A Gamewell System, with nine boxes around the yard, works the fire whistle and gives the location in an annunciator in the head watchman's office where there is always a man on duty. The alarms on the storehouse dry-pipe valves also all ring in at this point. The different parts of the system are subject to careful, regular inspections by competent men, and receive regular inspections of the fire insurance companies' experts.

The town of Plymouth also is prepared to furnish valuable assistance. It has an excellent motor-driven equipment and a superior organization. A pull on the town Gamewell box, which is near the head watchman's office, brings one 750- and two 350-gallon motor pumps; one ladder truck with hose and chemical material. These pieces in ordinary weather would reach the plant in about five minutes. On a second alarm, one horse-drawn steamer of 900 gallons and other of 500 gallons would respond. There are ample pond and harbor facilities for suction supply to this pumping apparatus.

Our responsibility to the trade in supplying both rope and binder twine for the world markets, where and whenever needed, is never for a moment lost sight of, and these efforts along fire-prevention lines to safeguard our plant from fire losses, insure uninterrupted production of our cordage products, availability of their supply, and dependable service at all times so far as is humanly possible.—*N. F. P. A. Quarterly.*

Instruction in Fire Protection

(*Continued from page* 128)

within 20 feet of a building grading Large (see table) when height should be increased to 36 inches.

Note 1: When two buildings of unequal height adjoin, the facing wall of the higher should be considered the equivalent of the parapet of the lower. The height of the parapet should be determined according to the height of openings in the facing wall of the higher above the roof of the lower or, if no openings, by the height of the facing wall.

Note 2: When roof of either exposed or exposing building is of fireproof or incombustible construction or when roof of exposing building is two or more stories lower, unless combustible cornices, eaves, or roof houses project, no parapet is required.

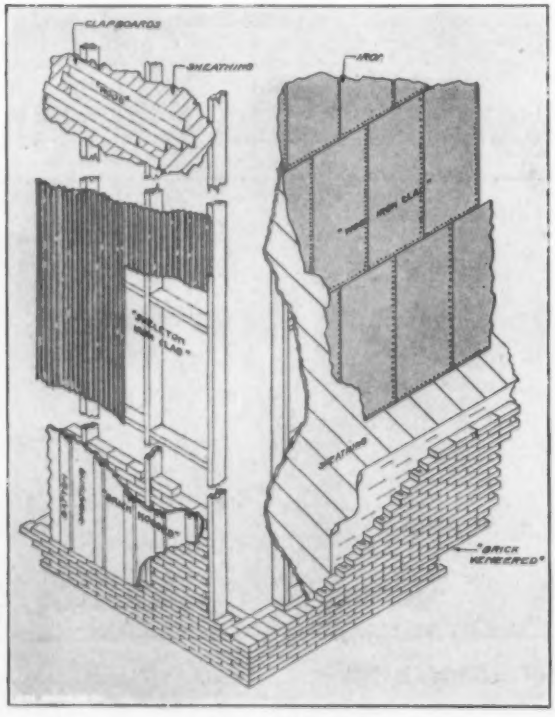


Plate 5. D Walls.

Table of Large Buildings

Construction	Height in Stories	Ground Floor Area Classes 1 to 6	Ground Floor Area Classes 7 to 10
D	1	8,000	5,000
	2	5,000	3,000
	3 or higher	All Buildings	All Buildings
B	1	12,000	8,000
	2	8,000	5,000
	3	5,000	3,000
	4 or higher	All Buildings	All Buildings

Note 3: When a story exceeds 15 feet in height, each 15 feet or greater part thereof in excess of the first 15 feet should be treated as an additional story. When such a story extends to the roof, height should be measured to the eaves.

Note 4: When a building contains exclusively incombustible contents, areas in above tables should be increased one-half.

Note 5: Solid rows under 9th and 10th classes of protection should grade large under the following conditions:

If total ground floor of all buildings in row is 7,500 square feet or more when no building in row exceeds one story in height.

If total ground floor area of all buildings in row is 4,500 square feet or more when any building in row is two stories in height.

If any building in row grades large.

A Fender Wall should extend not less than 18 inches above, except as provided for under parapets, and not less than 36 inches beyond combustible roof structures or extensions. (See Plate 3.)

Fire Stop Wall

Definition: A Fire Stop Wall is a fire wall subdividing a row of frame buildings or sections of frame buildings so as to restrict the spread of fire.

Requirement: Fire Stop Walls should be of masonry, not less than 12 inches thick, without openings or with all openings protected by doors approved for the protection of openings in fire walls and extend at least 36 inches above the roof combs and 36 inches beyond the ends of the building, or have a T extending 6 feet on each side of the walls or an L extending 12 feet on one side of the wall (Plate 4).

Incombustible Walls

Definition: Incombustible walls are walls of metal, metal lath and plaster and (or) glass or any other incombustible material on incombustible supports.

Combustible Walls.

Definition: Combustible walls are walls of wood, wood iron clad, skeleton iron clad, brick veneered, brick nogged, or any combustible or incombustible material on combustible supports (Plate 5).

(*To be continued*)

Latest Simonis Patent

"Liliput" is the name given to a pump recently patented by Henry S. Simonis, fire engineer of Willesden Lane, Park Royal, London, N. W. The apparatus consists of a rotary pump, a ramp, a trough, an idler pulley and pump pulley. To put the pump into action the rear wheel of the motor car is backed up to the ramp until it slides into the trough between the idler pulley and the pump pulley. There is no gearing transmission or fitment, merely the weight of the car pressing the pneumatic-tired wheels of the car against two rollers—one an idler. The other has a small positive acting rotary pump, which is set in motion. Each pump is said to be able to deliver about 40 or 50 gallons and a good pressure. The single outfit consists of one 10-foot length of suction hose, one 50-foot length of 2-inch delivery hose with gunmetal couplings, one branchpipe with ½-inch nozzle, also an adaptor from 2-inch to standard brigade coupling used in the district. If the pump can be kept at the fire station or any other public place, it can be brought immediately into action, and can use whatever water is available.

New Brighton, Pa., Elects Chief—Elmer Faust has been made chief, and Henry Sutherland, assistant chief, of the fire department in New Brighton, Pa.

Priests Quench Fire With Sand and Salt—A smudge of smoke rolling out of the fire place in St. Stephen's Rectory, 134 W. 29th street, New York, recently, aroused the priests, who fought the flames in the chimney with sand and salt. Firemen, called by an alarm, found nothing to do on their arrival.

Six Essential Requirements of a Fire Hydrant:

1. Water Supply.
2. Rugged Construction ✓
3. Non-Freezing.
4. Compression Valve— closing with the pressure.
5. Minimum Maintenance.
6. Adaptability to Installation Changes.

What Does the Fire Chief Ask Himself When About to Buy Fire Hydrants?

Rugged Construction ✓

With ever-increasing city traffic, the danger of frequent damage to the fire hydrants becomes a serious factor. Collisions are inevitable, but whether the damage is to the car or hydrant, or both, depends in the majority of cases on the Fire Hydrants you install.

Many Fire Chiefs consider this point so important that they have chosen the Darling Fire Hydrant on that one thing alone. Many is the story and appreciative letter received at our office telling how some truck or other vehicle came off second best in a wrestling match with a Darling. It's the extra large barrel and weight which gives the Darling Hydrant such unusual strength.

Darling's strength is not only in the size of barrel but in every working part and it is this rugged construction that overcomes the abuses attending the quick opening of the hydrant. Yet this is only one of the six major features which make Darling Fire Hydrants so desirable.

DARLING VALVE & MANUFACTURING CO.,
Williamsport, Pa.

NEW YORK
CHICAGO
OKLAHOMA CITY
HOUSTON

DARLING
FIRE HYDRANTS

Why don't you speak for yourself, John?

THIS page would provide a splendid opportunity for some manufacturer to tell the readers of Fire Engineering:

1. What he makes.
2. How well he makes it.
3. What it will do for the user.
4. How it can be purchased.
5. And other why's and wherefore's that go to influence sales.

FOR products that are used in the Fire Protection Field you can nowhere find so important and so interested an audience as the readers of Fire Engineering—Our readers are buyers of what they see in these pages. Are you reaching them adequately?

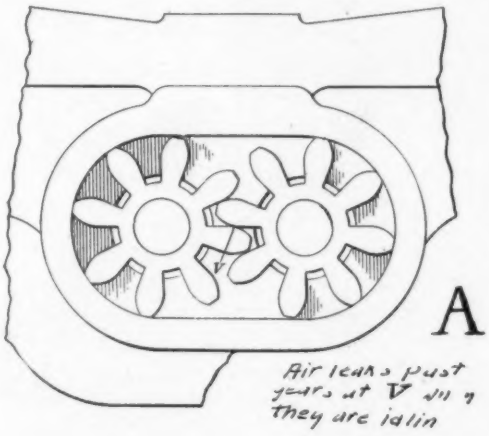
Recent Patents

Descriptions of Patents Recently Issued of Interest to Fire Departments—Rotary Pump—Oil Well Fire Extinguisher

Rotary Pump for Fire Engines

A patent has just been granted to Joseph L. Devon, of Atlanta, Georgia (Patent No. 1,567,923) for a rotary type of pump for fire apparatus with an appliance attached thereto for improving suction ability.

To state the patentees claim in his patent the following is



given: "The object of my said invention is to improve the water drawing ability of rotary gear pumps by the provision in combination with the idler or driven gear of such a pump of any appropriate braking attachment calculated to retard and prevent too free turning of said idler or driven gear, and in that way preclude said gear breaking contact with the driving gear with which it is meshed, such breaking of contact being objectionable because it allows air to slip back from the discharge chamber of the pump to the suction chamber thereof, thereby preventing the pump from developing sufficient vacuum to draw water from overboard suction."

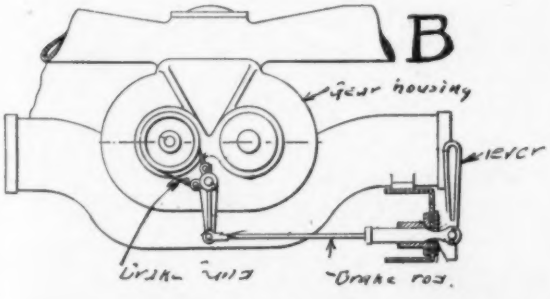
The sketch herewith shows the gears within a rotary pump for fire apparatus and also the attachment mounted thereon to improve suction ability.

Sketch A indicates the rotor gears in contact.

Where they are running idly, and where there is a little clearance, air leaks past the gears at point indicated at V.

As a matter of fact when they run idly, particularly if the packing is worn, the gears rattle and make and break contact during the revolution.

The object of device of the patentee is to provide a load on the idler so that the driving gear will have to, at all times, force



the idler around. By this means the contact between the driving gear and idler is continually maintained.

This continuance of contact is expected to prevent air from leaking back through the gears and thereby eliminate the likelihood of failure of pumps to take water from suction.

Sketch B indicates the arrangement of the drive.

The shaft of the idler, either elongated, or if sufficiently long, used as it is, is encircled by a brake band which communicates directly to the brake arm and then through brake rod to lever mounted on side of pump.

When the pump is taking suction the lever is drawn outward which tightens the brake band on the idler and in this way imposes a load upon it, making it necessary for the driving gear at all times to carry the driven gear around with continual contact.

As soon as suction is attained and water is passing through the pump, then the lever is released for its services are no longer required, the pump operating with gear continually in contact due to the load imposed by the discharge pressure upon the idler.

Oil Well Fire Extinguisher

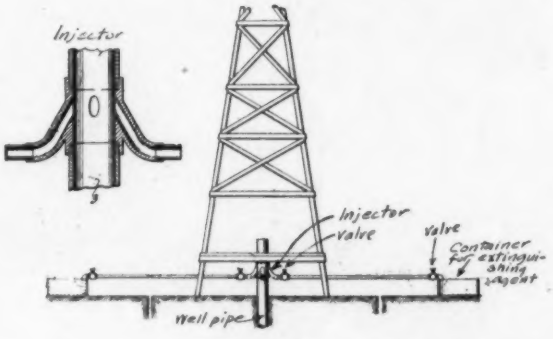
Patent has just been granted to Anton Axel Anthony of Memphis, Tennessee, (Patent No. 1,567,097) for a device to aid in extinguishing oil well fires.

The device and its application to oil well fires is shown in the sketch herewith.

The pipe leading into the well is fitted on the end with an injector as shown in the sketch. This injector is connected up with pipes leading out radially, one or more in number.

The sketch shows two pipes connected and a third connection on the near side of the injector attached to the well pipe. A fourth connection might also be provided on the far side.

These pipe lines which are attached to the injector terminate on the other end in containers in which are placed extinguish-



ing agents such as water, etc. Even sand, if of readily flowing consistency, may be employed.

Valves are placed on the pipe line near the injection and at each container as well.

The operation of the device is as follows:

When the well has been driven and there are indications that there is going to be a "blow," that is where strata bearing quantities of oil is to be struck and the oil forced out under high pressure generated by its gas, the valves located on either side of the injector are opened. The valves at the container on the pipe line are, however, closed.

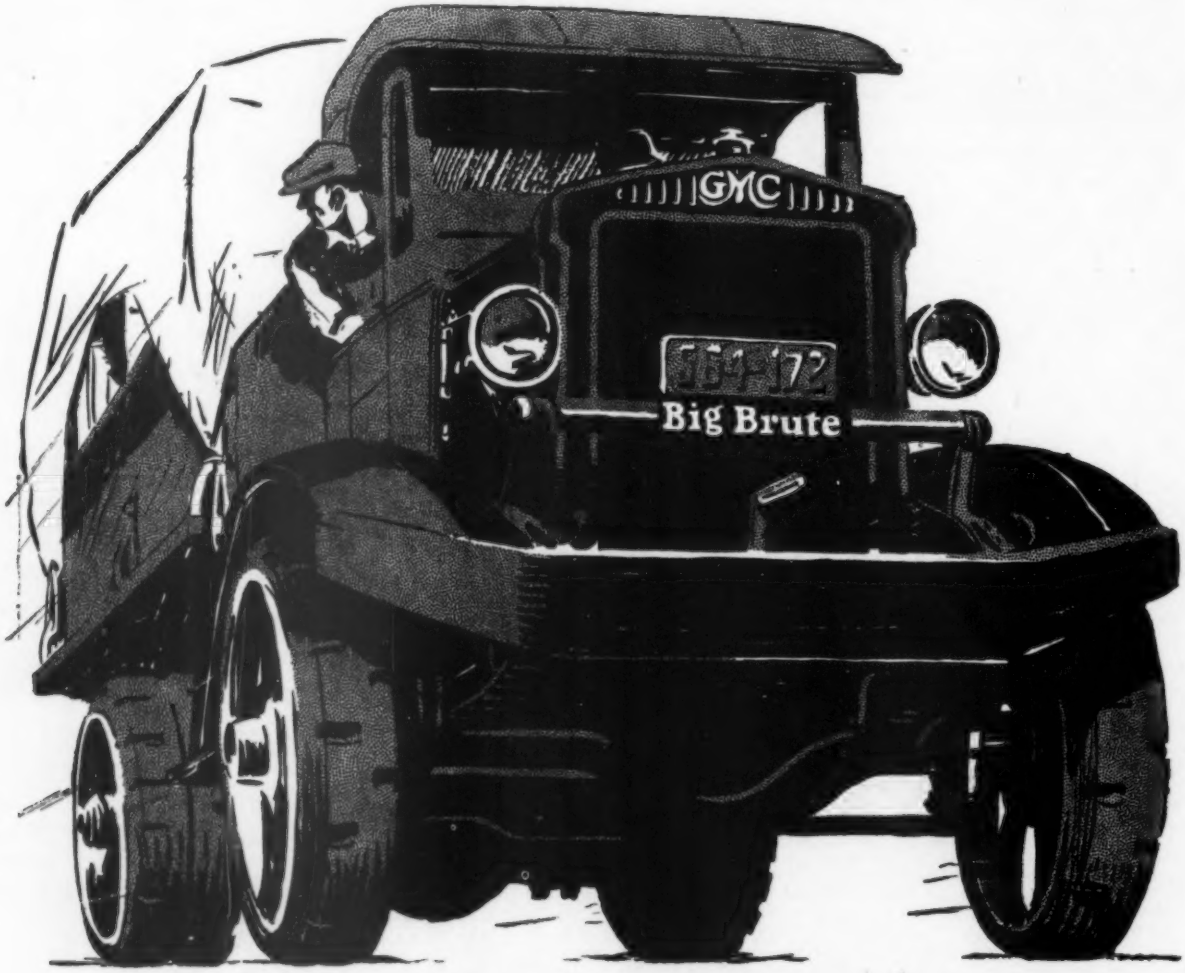
Then as soon as the oil is struck and it spurts out, should it take fire the men retreating from the blaze would immediately take positions at the valves located by the containers. These valves would be opened and the necessary extinguishing agents placed in the containers or reservoirs.

The rush of oil through the well pipe would create a vacuum at the injector and draw in through the pipe lines connected with the reservoirs the extinguishing agents.

It is expected that the injection of these extinguishing agents into the oil stream as it flows through the pipe line will extinguish the fire.

Apparatus Rushed to Richfield, Pa., to Save Town—Fire apparatus from nearby towns, one from a point seventy miles distant, was rushed to Richfield, Pa., on New Year's eve to save the town from possible destruction by fire. A number of barns, dwellings and lesser structures with a total value of $100,000 was destroyed. Hose line laid from the Mahantongo creek saved the sixty houses in the village.

A truck such as men



General Motors Contribution to American Industry

BORN of the combined engineering genius of 1,000 of the world's foremost engineers and fostered by the gigantic General Motors Corporation, with operations covering some 144 countries, resources running in the hundreds of millions of dollars and sales aggregating One Billion Dollars yearly, comes Big Brute—*a truck such as the industrial world has never seen before.*

GMC Big Brute

have never seen before

BRUTE in name, power, in size. Brute in terrific stamina and tremendous endurance. Big Brute is built to stand impregnable against the most brutal requirements of man and industry.

Beautiful in its brutal ugliness, Big Brute looks what it is . . . . a *Colossus among the Giants of modern transportation.* With the operating ease of a lithe passenger vehicle: a Fisher-Built Cab to furnish driver's comfort unknown before, and mechanical improvements years beyond the ordinary conception of today, it stands to change the industrial motor transportation of the world.

A Truck Without "Bugs"

From its vast engineering experience, covering the production of over 4,849,485 passenger and commercial cars, during the last 25 years, General Motors Corporation has eliminated, in Big Brute, the vital weaknesses, the engineering mistakes, the structural flaws previously common among heavy duty trucks. **Big Brute is a truck without "bugs."** More than 71% of all motor vehicles made and sold by General Motors are now in active service.

The motor trucks of the entire world were studied by General Motors engineers in developing Big Brute. It was learned why some trucks rendered but limited service. Why others surpassed them. Why some operated under nominal upkeep, while others were economic failures. One by one, these factors were met, analyzed and weighed. All mistakes of past years were corrected. *A new standard in heavy transportation thus was set.*

Sold Under GMAC Plan

Big Brute, like all other products of the General Motors Corporation, is offered under the liberal General Motors Acceptance Corporation Plan of deferred payments—the lowest cost under which any motor car or truck can be financed on time payments.

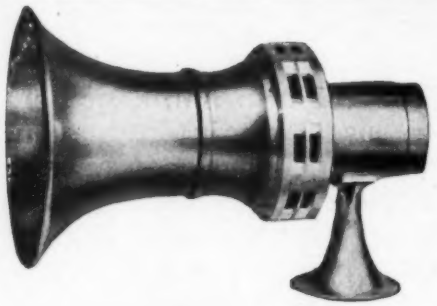
GENERAL MOTORS TRUCK COMPANY
PONTIAC, MICH.

Products of
Yellow Truck and Coach Manufacturing Company
subsidiary of General Motors

GMC Big Brute, 3½ and 5 ton trucks
GMC 1, 1½ and 2½ ton trucks
Yellow Cabs Yellow Coaches
Yellow Light Delivery Trucks
Hertz Drivurself Cars
GMC 5 to 15 ton Tractors

GMC Big Brute

SIRENO



You can't mistake it—

that penetrating, wailing screech of SIRENO Electric Sirens

They have a remarkable penetration, and can open up traffic lanes at astonishing distances ahead.

At the same time the current consumption is remarkably low, and your batteries are saved from the tremendous strain of excess current consumption commonly found in electric fire apparatus sirens.

Sireno Sirens are built by specialists in the manufacture of electric sirens for emergency signalling only. They are pioneers in the field and have many years' experience behind them. Write for bulletins.

THE SIRENO CO., Inc. **Staten Island, New York**

Two Books of Practical Value

to every fire officer interested in up-to-date methods and equipment

The New York Fire College Course

$1.50 a Copy—By Mail, $1.65 Postpaid

Comprising an abstract of the advanced practical instruction in up-to-the-minute Fire-Fighting methods given officers of the N. Y. Fire Dept. Fire Chiefs in cities, large or small, are increasing the efficiency of their men by placing this valuable book in every station. And with its help, too, fire department officers and men, studying for promotion, are easily winning top marks at examinations.

Explains in Clear Understandable Form—

Fire department tools and the most effective way of using them. Proper way to raise ladders and place apparatus. Building inspection, including sketches of buildings and points to cover in fire prevention and inspection work. Dwelling fires, and how to handle them. Apartment house fires, and how to fight them. Tenement house fires, and how to fight them. Office building fires, in old and new buildings; how to place apparatus and how to handle fires. Overhauling at fires, and wetting down fires without excessive water damage. Chemicals most with in fire service, and precautions to take. Chemical and electrical fires. Oil fires and varnish fires.

What Every Fire Fighter Should Know

$2.50 a Copy—By Mail, $2.65 Postpaid

Comprising a reprint of the famous series of articles which appeared in FIRE AND WATER ENGINEERING during 1921 and 1922, under the same title.

This book is brimful of authoritative data covering the various phases of fire protection, and should serve the progressive fire chief interested in scientific fire-fighting methods as a valuable reference guide. It also gives to ambitious fire department officers and men, in simple, understandable form, the kind of information that will be found extremely helpful in preparing for promotional examinations. Contains more than 300 pages. Cloth bound.

Some of the Subjects Thoroughly Explained

Practical hydraulics. Fires and How They Should Be Handled. Fire Streams. Fire-Fighting Administration. Drills and Training Hazards of Industries. Fire Extinguishers. Oil Storage Hazards. Electrical Fires. Care of Fire Hose. Auxiliary Fire Appliances.

You Will Find These Books Worth Many Times Their Price. Order Today!

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225 West 34th St., N. Y. C.

Please send me ..... copies of "The New York Fire College Course" and ..... copies of "What Every Fire Fighter Should Know" for which I enclose a money order for $.....

Name.....Rank.....

Address..... Date.....

FALSE ALARMS

WHAT'S THE USE!

A fireman who had been injured by falling material at a fire had been confined in an asylum with insanity induced by the accident, but was improving. The doctor made an examination and encouraged him by telling him that he was doing fine, and that he would be out in less than three weeks.

Greatly encouraged, the patient sat down to write the good news back to the boys in the station. As he sealed the letter the stamp dropped to the floor and landed on the back of a cock roach which the patient had not noticed.

Across the floor went the stamp, then up the wall and across the ceiling. The patient's eyes followed it intently, then laying down on the letter, he said: "H—l, what's the use, I'll not be out of here in three years."

An Atchison, Kansas, painter smelled smoke while riding in his motor car. He thought his car was on fire and began to call loudly. Someone sent in the alarm and as the fire department dashed up the painter discovered it was but his necktie burning. —*DEARBORN IND.*

TOOTLE THE HORN AND TRUMPET MELODIOUSLY!

We are indebted to our friend Mr. T. Wilcox Stephens for the following list of Japanese rules of the road, copied literally as they appeared in English at Police Headquarters in Tokio.

It is certain that most Americans would have even more difficulty than the Japanese experience in handling our language, if we were to attempt anything of the kind in The Flowery Kingdom; but at any rate American fire fighters who have been experiencing difficulty with traffic congestion in our American streets will appreciate the following Tokio rules:

No. 1 At the rise of the hand of policeman stop rapidly.

No. 2. Do not pass him or otherwise disrespect him.

No. 3. When a passenger of the foot hove in sight tootle the horn, trumpet at him melodiously at first, but if he still obstacles your passage, tootle him with vigor and express by word of the mouth the warning "Hi, Hi."

No. 4 Beware the wandering horse, that he shall not take fright as you pass him by. Do not explode an exhaust blow at him. Go soothingly by.

No. 5. Give big space to the festive dog that shall sport in the roadway.

No. 6. Avoid entanglement of dogs with the wheel spokes.

No.7. Go soothingly on the grease, mud, and avert the skid demon.

No. 8. Press the brake of the foot as you roll around the corner to save collapse and tie-up.

SPEAKING OF COLD FEET

During the summer of 1915 a western fire company was having its old frame fire station demolished preparatory to erecting a new house. During the interval the men were housed in an old residence which had been abandoned for several years and which had always been known as the haunted house, it being reported that the former owner had died in one of the rooms from very mysterious causes.

Naturally most of the members of the company had explored the old residence and its many passages. One night at station mess the talk turned to spiritualism and gravitated to the history of the haunted house. One member, a young recruit of the company, whom we will call Jones, and who had many times had his courage questioned at fires, said that for $25.00 he would sleep alone that night in the haunted room of the haunted house. A pot of the required amount was soon made up, and his proposition having been accepted by the other officers, a couple of the boys quickly fitted up Jones' bed-roll in the haunted room. All of the members of the company saw Jones turn in for the night. Then they went out for a smoke, talked awhile, and Jones went asleep. It was discovered, however, that after the men had left the room Jones had quietly slipped his revolver beneath his pillow. He slept peacefully until 2 o'clock, when he awoke with a queer feeling of oppression. He raised his head and looked about him. The room was faintly illumined by the pale light of a full moon. In the weird bluish light he thought he discerned a small white hand clasping the rail at the foot of his bed.

"Who's there," he said hoarsely.

There was no answer, the white hand apparently did not move.

"Who's there," he repeated. "Answer me or I'll shoot."

Again there was no movement or reply.

Jones cautiously raised himself on his elbow, took careful aim and fired.

And now he limps. He shot off two of his own toes.

PERSISTENCY

The following story has been told in many different forms, but checking up on the earliest traditions of it leads to the conviction that it contains a certain amount of truth and centers about a member of the New York Fire Department who is too well known to be named here. For the sake of convenience he will be called John Doe. It appears that John Doe applied, under a special leave of absence arrangement permitted in the New York department at the time of the war, for enlistment in the American Expeditionary Force.

He wanted to do his bit in the trenches.

He was assigned to camp, but as soon as they discovered that he had been a fireman they placed him in one of the fire companies at a camp and, protest as he would, he was unable to get a transfer to a fighting unit at the front.

When he saw that his position was a hopeless one and that he was doomed to continue fighting fires instead of the enemy during the war he immediately developed the habit of picking up every piece of paper which he saw, looking at it intently, after which he would lay it down with the words, "That's not it." The company officers and first sergeant stood for this as long as they reasonably could, and he was put back into ranks. However, on several occasions he would drop out of the ranks or out of a march and pick up stray pieces of paper which he saw, only to immediately lay it down with the customary remark, "That's not it."

In spite of penalties imposed for breaking formations, he continued the practice, and in off hours would wander about the camp, always with his eyes on the ground.

After a few weeks it seemed quite certain that he was demented, and he was sent to the hospital for observation. At the hospital nothing could break him from his queer actions, though if there was no slips or sheets of paper in his immediate vicinity there was no evidence that he was anything but rational. But his inevitable "That's not it" eventually got on the nerves of even the hospital attendants. Eventually it was decided to discharge him. So he finally appeared before the adjutant of the demobilization battalion to receive his discharge. He stood quietly at attention in front of the adjutant's desk until that officer handed him his discharge. He looked at it keenly for a moment, and then remarked in a decisive tone "That's it."

FIVE ALARM BILL THE BRAVE AND GIFTED VIOLINIST OF HOOK AND LADDER CO. NO 23 WAS AGAIN THE HERO OF YESTERDAY'S FIRE - HE PLAYED THE SCALES UNTIL EVERYONE OF THE 410 TENANTS CLIMBED TO SAFETY!

Musical fire fighter is now demonstrating extinguishing of fire by violin music in New York. Here's a newspaper reporter's conception of what it might develop into.

Hebrew Merchant: "Oi, oi, dose uniform pants fit beautiful, ain't it?"

Swedish Fireman: "Ya, but a trifle tight under the arms, don't you tink?"

FIREPROOF

A neighbor's house burned down the other night and the only thing not destroyed by the flames was the stuff he had in his coal-bin, for which he had paid $25 a ton.—Life.

FIRE DEPARTMENT ACTIVITIES

Humphrey, Neb., Elects Fire Chief—Carl Lewis was elected chief of the fire department of Humphrey, Neb.

Hamilton, Kans., May Purchase Apparatus—The purchase of a new fire truck is being considered by Hamilton, Kans.

Chiefs' Car Purchased for Dover, N. J.—A car for the use of the fire chiefs in Dover, N. J., was recently purchased.

Hatboro, Pa., Purchases Apparatus—The Hatboro, Pa., borough council purchased an Ahrens-Fox 750-gallon pumper.

Chief Elected for Inwood, N. Y.—Chester Newton has been elected chief of the fire department at Inwood, N. Y.

Springfield, Ill., Receives New Pumper—An Ahrens-Fox pumper of 1,000 gallons capacity was delivered to Springfield, Ill.

Alton, Ill., to Increase Firemen's Salary—The city council of Alton, Ill., voted to increase the salary of the firemen from $130 to $140 a month.

Rockford, Ill., May Increase Firemen's Pay—Plans are being made in Rockford, Ill., to increase the salary of the firemen ten dollars a month.

New Chief Named for Cheyenne, Wyo.—The city council of Chyenne, Who., has appointed former mayor, E. P. Taylor, chief of the fire department.

Move Into New Calorado Springs Fire Station—The central fire company of Colorado Springs, Col., have moved into their new $60,000 fire station.

Fire Destroys Water Plant—On December 21, fire destroyed the municipal water and light plant at Summer, Miss., entailing a loss of $75,000.

Cuyahoga Falls, Considers Fire Station—A committee has been appointed in Cuyahoga Falls, Ohio to consider the prolem of the erection of a new fire station.

Coopersburg, Pa., Apparatus Tested—The new White apparatus for Coopersburg, Pa., has been put through the standard test and an informal inspection held later at the fire station.

Elgin, Ill., May Abandon Fire Houses—Radical plans have been proposed in Elgin, Ill., for reducing the number of fire houses in the city to two, one to be located on each side of the river.

La Plata, Ill., to Organize Fire Department—At a combined meeting of the city council and the American Legion, plans were made for the formation of a fire department in La Plata, Ill.

Ogdensburg, N. Y., Apparatus to Stay in City—The fire apparatus of Ogdensburg, N. Y., must, according to recent orders of the city council, stay in the city and can not respond to outside calls.

Wheeling, W. Va., Purchases Additional Hose—A contract was awarded to the Bi-Lateral Hose Company of Chicago for supplying 5,000 feet of fire hose to Wheeling, W. Va., at the rate of $1.50 a foot.

Red Wing, Minn., Increases Salary of Chiefs—At the last 1925 meeting of the board of fire commissioners of Red Wing, Minn., the pay of the chief was raised from $1,800 to $1,900 and the salary of the assistant from $1,500 to $1,560.

Rat Causes Fatal Fire—A rat overturned a kerosene lamp on a United States Barge Company's coal boat in New York bay recently, and Captain Henry Fischer was burned to death, while in his sleep. He was 70 years old and lived in Hoboken, N. J.

Department Organized in Agricultural College—A fire department has been organized by thirty students in the State Agricultural College at Farmingdale, N. Y. Drills will be held once each week and the department may be called on to handle brush fires.

New Deputy Chiefs for Detroit, Mich.—Acting on the recommendation of Charles T. Clippert, president of the board of fire commissioners, four new deputy chiefs in the Detroit, Mich., fire department were created. The salary is fixed at $4,000 a year.

Three Die in Vincennes, Ind., Apparatus Crash—As the result of a fire apparatus of Vincennes, Ind., crashing into a farmers wagon, three firemen are dead, Chief Dan Decker is probably fatally hurt and the farmer is in the hospital with a crushed chest, a broken leg and a fractured skull.

Chicago Elevated Rams Fire Apparatus—At a point on the Chicago, Ill., elevated system where the tracks have a grade crossing on the outskirts of the city, a fire apparatus which was trying to beat the train to the crossing, was struck by the train. There was little left of the apparatus after the train, which was going forty miles an hour, rammed it.

Kalama, Wash., Department Has Good Record—The volunteer fire department of Kalama, Wash., which is a year old has a very good record. The members have given liberally of their time to organize the department, while a number of the town's people have assisted unselfishly. Members of the Women's Club are appointed each month to respond to fire calls and serve coffee and sandwiches during large fires.

St. Cloud, Minn., to Have Index of Buildings—A system will be started in St. Cloud, Minn., whereby all buildings within the fire zone will be listed on index cards together with their inspection dates. During the past year, the buildings were inspected at intervals of three months instead of every year as formerly. Occupancies that are found to be habitually in poor condition will be inspected monthly and police authority will be utilized to enforce department regulations.

Fire Alarm Notes

Siren Purchased for Farnhamville, Ia.—A new siren has been purchased for Farnhamville, Ia.

Siren Installed in Marathon, Ia.—A new siren has been installed on the bell tower in Marathon, Ia.

New Boxes Installed in Arverne, N. Y.—Ten additional fire alarm boxes have been installed in the Somerville section near Arverne, N. Y.

Winter Park, Fla., to Have Fire Alarm—The installation of a fire alarm system is being planned by Mayor C. Fred Ward of Winter Park, Fla.

Wellesly, Mass., to Have Warning Siren—A siren has been installed in the square at Wellesly, Mass., to warn of the approach of fire apparatus.

Fire Alarm Completed in Lincoln Park, Mich.—The new fire alarm system has been completed in Lincoln Park, Mich. The system consists of twenty-eight boxes.

St. Cloud, Minn., to Install Fire Alarm System—Plans are being formulated for the installation of a fire alarm system in St. Cloud, Minn., consisting of twenty-eight fire alarm boxes.

Gongs Must be Installed in Fraternity Houses—Will Moore, state fire marshal of Oregon, has issued an order to the dean of the University of Oregon, at Eugene, Mich., that fire alarm gongs must be installed in all the fraternity and sorority houses.

System of West New York, N. J., Now Operating—The new fire alarm system of West New York, N. J., consisting of eighty-seven boxes has been placed in operation. With the new system, every public and parochial school in the city has a fire alarm box in the building.

Similarity of Names Causes Alarm Delay—The similarity in the street names was a contributory factor in the $25,000 fire damage in a home in Brookline, Mass. The party whose house was on fire called up the telephone central and notified them of a fire in Newton street. Through an error, the fire department thought the fire was in Newton street, Newton, instead of Newton street, Brookline. The two places are one and a half miles apart, and after going to the wrong address, the chief followed a hunch and reported to the Brookline address.

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Against Smoke and Smoke Gases

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Balanced weave, with minimum elongation and twist

Smooth water way, slow aging elastic tube.

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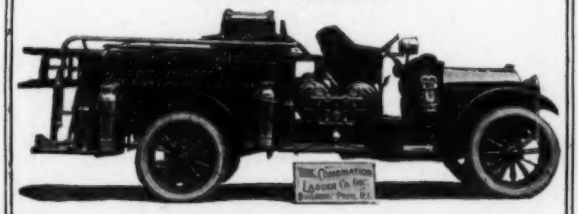

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Get the word to them quickly and accurately. Delays in transmitting calls may result in the loss of lives and thousands of dollars property.

If your box brings the firemen only three minutes quicker—then it has paid for itself in the loss it has saved. Think it over!

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Complete Fire Signalling Equipment for Municipalities
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New Invention Quick Seller!

Make $10 a day easy with this new kind of Fire Extinguisher, approved by (Fire) Underwriters' Laboratories and big Insurance Companies. No experience necessary. We deliver and collect. Your pay starts at once. We furnish full size samples—filled and complete. Write quick for free outfit offer. (632)

FYR-FYTER-1059 Fyr-Fyter Bldg., Dayton, O.

CONVENTION DATES

March 30-31—FLORIDA STATE FIREMEN'S ASSOCIATION. Annual Convention, Palatka, Fla. Secretary, Chief F. C. Pfaender, Winter Haven, Fla.

April 1—INDIANA FIREMEN'S ASSOCIATION. Annual Convention, (tentative date, week of April 1). Marion, Ind. Secretary, Frank H. Miller, Fire Headquarters, Terre Haute, Ind.

May 10-13—NATIONAL FIRE PROTECTION ASSOCIATION (International). 30th Annual Meeting, Atlantic City, N. J. Secretary, Franklin H. Wentworth, 40 Central St., Boston, Mass.

June 8-10—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. 37th Annual Convention, Port Jervis, N. Y. Secretary, Chief Chris W. Noll, Fire Department, Poughkeepsie, N. Y.

June 9-11—MARYLAND STATE FIREMEN'S ASSOCIATION. 34th Annual Convention, Westminster, Md. Secretary, George R. Lindsay, Hagerstown, Md.

June 22-24, 1926—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS—Fourth Annual Convention, Hotel Carpenter, Corner Merrimack and Franklin Sts., Manchester, N. H. Exhibit Hall, New Hampshire State Armory. Secretary, Chief John W. O'Hearn, Watertown, Mass. Chairman, Exhibit Com., Chief Henry H. Heitman, Waterbury, Conn.

July 14—DELAWARE STATE VOLUNTEER FIREMEN'S ASSOCIATION. 6th Annual Convention, New Castle, New Castle County, Del. Secretary, Sam H. Carson, Dover. President, Geo. Clifton Maull, Lewes.

Aug. 17-19—FIREMEN'S ASSOCIATION OF THE STATE OF NEW YORK. 55th Annual Convention, Alexandria Bay, N. Y. Secretary, Fred A. Davis, Fort Edward, N. Y.

Sept.—KANSAS FIRE CHIEFS AND FIREMEN'S ASSOCIATION. Tentative Month of Annual Conventions, at Manhattan, Kan. Secretary, Chief K. D. Doyle, Wamego, Kan.

Sept. 14-15—IOWA STATE FIREMEN'S ASSOCIATION. 49th Annual Convention, Manning, Ia. Secretary, E. E. Parsons, Marion.

Sept. 27-29—ARKANSAS STATE FIREMEN'S ASSOCIATION. Annual Convention, Jonesboro, Ark. Date of meeting tentative. H. S. Compton, secretary. Central Fire Station, Little Rock, Ark.

Oct. 5-7—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. Annual Convention, Philadelphia, Pa. Secretary, Charles F. Clark, 411 Bellevue Avenue, Wayne, Pa.

Oct. 19-22—INTERNATIONAL ASSOCIATION OF FIRE ENGINEERS. 54th Annual Convention, Hotel Roosevelt, New Orleans, La. Secretary, Chief James J. Mulcahey, Yonkers, N. Y.

Blanton, Former Savannah Chief, Heads Macon Department

Walter S. Blanton, former chief of the Savannah, Ga., fire department, was elected chief of the Macon, Ga., fire department by the Macon city council on February 2d. The appointment was made by the fire committee of Macon, after a thorough investigation of the record of Chief Blanton. His connection with the Savannah department included five years as a private and two years as chief, during which time he is credited with having proved a loyal employe, especially in the latter office, where he displayed exceptional administrative ability and left the department in a high state of efficiency.

Chief Walter S. Blanton, Macon, Ga.

In fact, several months ago when the Miller administration were in quest of a man to put the Macon department on an improved basis, attention was directed to Blanton as the one who could perform that task. Chief Blanton is married and has two children. He is a member of the Calvary Baptist church, Board of Trade, Civic Club, Motor Boat Club, and the High School Athletic Association, in the City of Savannah. He is Past Master of Acacia Lodge, F. & A. M., a 32d degree Mason and a member of Alee Temple of The Shrine, and also a past state officer of the Junior Order of American Mechanics. The new Chief will bring his family from Savannah to Macon at once.

JOHN A. STULB.

PROPOSED IMPROVEMENTS

Owensboro, Daviess Co., Ky.—Purchase of new 750-gal. pumper and the installation of a fire alarm system is recommended by Chief E. Cureton.

Raymond, Pacific Co., Wash.—City issued $25,000 bonds for purchase of fire equipment and pumper.

Bay City, Bay Co., Mich.—Two pieces of fire apparatus will have to be replaced at early date due to wear.

Burlingame, San Mato Co., Cal.—Committee named to consider purhchase of fire equipment for which bond issue will be floated; Harry Totten on committee; Chief Dossin has been named to prepare map for 100 fire alarm boxes.

Tracy, San Joaquin Co., Cal.—Visiting fire department experts stated that local equipment is inadequate.

Gilroy, Santa Clara Co., Cal.—Funds being raised for purchase of fire appartus.

Orange, Essex Co., N. J.—City commissioners to purchase pumper estimated to cost $12,000.

Penn Yan, Yates Co., N. Y.—Hydrant Hose Co., advocating purchase of fire apparatus.

Wilson, Wilson Co., N. Car.—Construction of new fire station proposed by board of aldermen; improvement to cost $50,000.

Elyria, Lorain Co., Ohio.—Safety Director James E. Hewitt, ordered by council to invite bids for fire apparatus.

Martins Ferry, Belmont Co., Ohio.—Petition signed for purchase of new aerial truck; present apparatus in service ten years.

Holland, Ottawa Co., Mich.—Committee recommended purchase of new pumper and the erection of a new fire station has been postponed.

Flushing, Genesee Co., Mich.—Committee appointed by board of commerce to consider means of providing funds for purchase of fire apparatus for rural protection.

Homer City, Indiana Co., Pa.—Town council considering problem of purchase of fire apparatus.

Yukon, Westmoreland Co., Pa.—Funds being raised by dances, etc., for purchase of fire apparatus, expected to cost $5,500.

Evansville, Vanderburg Co., Ind.—City in need of new fire alarm system, present system is use for 12 years.

Huntsville, Madison Co., Ala.—Civic organizations request certain fire department improvements.

Logan, Hocking Co., Ohio.—Bids will be received until February 6 by Ed. Sherman, director of public service for furnishing the following equipment; pumper of 350-gallon capacity, not less than 33 h.p. S.A.E. rating. Bidder to furnish specifications 1,500 feet of fire hose, bidder to specify. Bids will be received separately.

Hebron, Licking Co., Ohio.—Bids will be received until February 15 by W. D. Andrews, village clerk, for furnishing a pumper suitable for the protection of the village of not less than 350-gallon capacity at 120-pound pressure and equipped with one or more chemical tanks, and a hose bed with a capacity for 1,000 feet of fire hose.

Suisun City, Solano Co., Calif.—Trustees instructed city clerk to advertise for bids for new fire apparatus.

Hollywood, Broward Co., Fla.—New fire station to be built to house new apparatus.

Rockford, Winnebago Co., Ill.—Resolution introduced in meeting of city council for purchase of ladder truck and new fire apparatus.

St. Cloud, Stearns Co., Minn.—Plan called to attention of city commission whereby by expenditure of $300,000 city can save $20,000 annually in insurance premiums. One plan calls for the purchase of two pumpers while the other calls for the purchase of one pumper and improvement of water works. Improvements in fire alarm system called for.

Salisbury, Wicomico Co., Md.—Purchase of fire apparatus for the rural protection is being sought.

Lambertville, Hunterdon Co., N. J.—Considering installation of fire alarm system.

Oakland, Alamada Co., Cal.—Plans approved for new bungalow type fire station.

Miami, Dade Co., Fla.—Coral Gables to erect new fire station.

Dunmore, Lackawanna Co., Pa.—Chief Murphy in annual report recommends the installation of additional fire alarm boxes.

Lohrville, Calhoun Co., Iowa.—Meeting held to consider formation of fire district and purchase of fire apparatus.

Aberdeen, Grays Harbor Co., Wash.—Considering problem of better fire protection.

For Sale
Triple Combination

American-LaFrance model. Rated capacity, 750 gallons. Address Box 116, FIRE ENGINEERING, 225 West 34th St., New York City, N. Y. 2-10-15, 3-10

Proposals For Fire Apparatus

FALL CREEK, WIS.

Bids open Feb. 16, 1926

Notice is hereby given that sealed bids will be received by the clerk of the Village of Fall Creek, at Fall Creek, Wisconsin, until seven (7) o'clock p. m., Tuesday, February 16, 1926, for a Chemical Equipped Fire Truck.

For further information see or write Village Clerk of the Village of Fall Creek.

The Village Board reserves the right to reject any or all Bids.

Signed George H. Zetzman, Village Clerk.

1-25-26, 2-10-26.

Proposals For Fire Hose

GARY, IND.

Bids Opened

Sealed proposals for the furnishing of three thousand (3000) feet of double jacket fire hose with heavy brass couplings attached, will be received until March, 12th, 1926.

Address all bids to J. H. Daly, Secretary of Board of Public Safety, and mark on envelope "Bid for Fire Hose" to include sample of hose.

The Board of Public Safety reserves the right to reject any and all bids.

J. H. DALY,
Secretary of Board of Public Safety.

Boston Fire Alarm Headquarters

(*Continued from page* 136)

There are two 8 duct conduits independent of each other leading from the station. The cost of laying the conduits and making connections outside of the station was $100,000. There are 20 gong and 20 tapper circuits in use at present with the latest style of slotting registers. The telephone number of the new station is "Kenmore 1100."

Future Developments Taken Care of

In planning the new station, provision was made for taking care of any future demands that may be made upon the Boston fire alarm telegraph system. In the event that other cities and towns in the vicinity are consolidated at some future time to form a "Greater Boston" it will be possible to place a gallery inside the building with space available for a large number of additional alarm boards.

Connections are to be made with the fire alarm systems of several adjoining cities so that in case of serious fires mutual aid can be at once dispatched.

The operating room is a broad, high ceiling, spacious apartment that occupies the main and central portion of the building with hallway and offices at the rear and sides. The building contains a conference room for the fire commissioner, office for superintendent of fire alarms, office for assistant superintendent, drafting room, lockers, toilets, shower baths, bedroom, mess hall and kitchenette. The large storage battery room is directly underneath the operating room.

Chief Gempp on American Fire Departments

(*Continued from page* 134)

Speaks Highly of American Fire Literature

Fire Chief Gempp observed the Fire Departments of New York, Chicago, Detroit and Milwaukee.

He made a most favorable impression while here. He is University bred, a chemist, engineer, fireman and soldier.

An extract from one of the article in the series pays a compliment to this publication at the time it was known as "FIRE AND WATER ENGINEERING." Chief Gempp wrote in part:

"The training of the New York fireman takes place in a special school, whereas the officers are taught every conceivable subject in the Fire College. The books used are examples of excellence, due to their preparation by generations of officers. But, in addition, the men have a splendid technical press at their disposal, no doubt due to the fact that many of the men employed by the papers are ex-fire officers.

"At the head of these publications stands the weekly paper called *"Fire and Water Engineering."* I can say without exaggeration that this publication is the most important in the world in its field. I am greatly indebted to its veteran and very active General Manager, I. Herbert Case, for many important suggestions. I have introduced this publication in Berlin and also wish to recommend it highly to the other German fire departments."

Vinton, Va., Organizes Fire Dept.

Vinton, Va., started out on the new year with a new volunteer fire department composed of 32 members. Emory K. Short was elected chief; J. A. Fitzpatrick, assistant chief, and C. E. Newman, secretary-treasurer. The town has purchased and placed in service one combination Seagrave, and has under construction a municipal building in which will be located the fire department headquarters. This will be ready for occupancy on April 1. Five hundred feet of fire hose have been delivered.

Ford City, Pa., Elects Chief—Floyd Rupert has been made chief of the fire department of Ford City, Pa., Alfred Booth and Blair McCullum have been made first and second assistant chiefs respectively.

Bradshaw, Neb., Has New Chief—At the annual meeting of the fire department of Bradshaw, Neb., on January 1st, William Green and Chris Anderson were elected chief and assistant chief respectively.

Waukesha, Wis., Adds Six Firemen—Six new firemen have been added to the fire department of Waukesha, Wis., to fill vacancies caused by the change from volunteer to part paid department.

Engine Supervisor of Rochester, N. Y. Dies—Frank Walter, supervisor and in charge of all the steam fire engines in Rochester, N. Y., and who trained the rookie firemen in their operation of pumpers, died at his home at the age of sixty-nine. He came from Seneca Falls, N. Y., where he worked for a fire apparatus company.

COLD SNAP KEEPS NEW YORK FIRE DEPARTMENT BUSY

Five-Alarm, Four-Alarm and 140 Other Fires Reported During Recent Drop in Temperature

AN acute drop in the temperature on Thursday, January 28th, created an unusual number of 140 runs in New York for a twenty-four hour period, resulting in a fifth alarm blaze in an old factory and storage building in Harlem, a four alarm fire in the manufacturing district of Brooklyn, and a two alarm fire in a garage in the Borough of the Bronx where 120 cars were destroyed.

The temperature was 4 degrees above zero and the wind at times attained a velocity of 60 miles an hour. Of the 140 alarms for the day, about six were malicious, which is a rather small number.

The run of fires started late on Thursday afternoon. At eight o'clock in the evening the biggest fire broke in the cellar of a five-story brick building on East 120th street in Harlem, containing wall paper, furniture, etc. It extended to the adjoining premises where the Salvation Army has its Industrial Homes Bureau. The fire caused Chief Kenlon to sound five alarms. The first and second alarm companies were at the fire twenty hours. Chief Kenlon said it was one of the "toughest fires I have had in five years."

While the fifth alarm fire was raging in Harlem, there was a first alarm fire in a three-story frame building at Third avenue and 162nd street in the Bronx, which required the services of three companies for over an hour and a half. The blaze originated in the hallway and broke through the roof. The flames leaped out of the top floor windows and scorched the structure of the Third Avenue "L" line running in front of the premises.

At 3.50 Friday morning a four alarm fire occurred at 46 Hopkins street, Brooklyn, and extended to 57 Ellery street in the rear. Next door to the latter address are the quarters of Engine Co. 230. The fire house was also damaged by fire. The Hopkins street premises contained feathers and down, as well as general merchandise.

Simultaneously with the burning of the Hopkins and Ellery street buildings, a two alarm fire broke in a garage 200 x 100 in the Bronx, at No. 1171 Webster avenue. There were 120 automobiles in the place. The garage is one story, brick with a wooden roof. Most of the cars were destroyed.

All other fires were held down to one alarm assignments. In most cases overheated furnaces were responsible. Fortunately there was not a single life lost. A few firemen were injured, but none seriously. It was so cold and dangerous that the *Evening World* was editorially moved to say this:

REMEMBER THE FIRE FIGHTERS

When the mercury drops to near zero one of the results is an increase in the number of fires due to the over-stoking of furnaces and the use of gas and electric heaters.

High winds in zero weather drive back sheets of spray to freeze in an ice-coat upon the firemen directing the hose. Sewers become blocked by ice that forms quickly, and from curb to curb there is a lake of ice-choked freezing water in which firemen stand. It is no uncommon thing for hands to be frozen to the nozzle of the hose. Firemen work under almost incredible hardship, but to their everlasting credit, it must be recorded that they never give a thought to the cruel cold.

Everyone can help in saving the firemen from the suffering of fighting fire in bitter weather such as we have had in recent days. Greater care in stoking furnaces, greater watchfulness for overheated pipes and flues and fewer overheated houses will reduce the fire hazard. And if there is a fire in your neighborhood, set out great pots of steaming coffee and sandwiches and pass them among the firemen. It is little enough to do.

W. J. DALY

Two Die in Lakewood, N. J., Hotel Fire

Fire which destroyed a hotel in Lakewood, N. J., caused the death of two of the women guests—one a late arrival and the other a nurse who lived there. The fire which started in the basement worked its way up the stair case. The entrapped guests had rooms on the opposite side on that which the fire escape was located.

The owner is held for violation of the building code which requires that each room in a building of three stories or more must have an individual rope or chain fire escape. The building inspector had sent a notice by registered mail to install fire escapes but this letter was disregarded. This is the second hotel fire within a week in Lakewood.

Westport, Conn., Buys a Triple Combination—A triple combination Hahn pumper was purchased by the fire department of Westport, Conn.

Bridgeport, Conn., Adds Nine Firemen—Nine new firemen were appointed to the fire department of Bridgeport, Conn., on January 23. Four captains and the same number of lieutenants were made by the fire commissioners of that city.

Rotary Pumps

HALE FIRE PUMPS CONSHOHOCKEN PA

100 to 750 Gal. per minute capacity

HALE FIRE PUMP CO. INC.
Conshohocken, Pa.

Selden Trucks

PACEMAKER

6-cylinder 55½ H. P. Motor. Triple combination apparatus with 350-gallon pumper.

ROADMASTER chassis with 6-cyl. motor for 500 to 750-gallon pumpers.

SELDEN TRUCK CORPORATION
Rochester, N. Y.

The STOUGHTON

Community Fire Fighter is Designed Especially for Small Towns

Fire apparatus for volunteer and small town fire departments must be designed, built and equipped to meet particular requirements. It must be a combination of several distinct types built for city use. It must be complete in every detail.

The Stoughton, the *Original Community Fire Fighter*, is designed to meet these requirements and made in three sizes,—300—350 and 500 gallon capacities. Each model and every piece of apparatus guaranteed to pass the National Board of Fire Underwriters' twelve-hour pumping tests.

May We Send Complete Information?

STOUGHTON WAGON COMPANY
FIRE EQUIPMENT DIVISION, STOUGHTON, WIS.
STOUGHTON FIRE APPARATUS CO., 250 W. 57th St., New York City, Eastern Representatives

LARKIN Shut-off Nozzles

Over 2000 Fire Departments have 15,000 Larkin Shut-off Nozzles in service. They have a successful record that is not exceeded by any article used in the fire service. Specify and insist upon them in buying new apparatus.

Write for catalog

The LARKIN Mfg. Co.
Dayton, Ohio

High Grade Fire Dept. Supplies of All Kinds

Are These Advertising Pages Read?

THERE can be no doubt about it, judging from the experiences of our regular advertisers and what our regular readers tell us about how they refer to our advertising pages when in the market for new equipment.

Some manufacturers are still hesitating about the spending of advertising funds to reach new customers, failing to realize that **intelligent advertising is not an expense but an investment!** Of course, it costs money, but so does gasoline to make your auto go.

Think it over — and write for present advertising rates if you haven't already done so.

The Advertising Manager

ATTENTION

FACT NO. 1

The Rensselaer Type of Improved "Corey" Fire Hydrant delivers the most water of any on the market.

ASK
RENSSELAER VALVE CO.
TROY, N. Y.
for prices and details.

Eastman Nozzles and Deluge Sets are

Designed by Engineers

who for over thirty years have specialized in equipment for producing superior fire-fighting streams in all sizes unsurpassed for solidarity, distance and effectiveness, and safely handled under all pressures.

WRITE FOR CATALOG

SAMUEL EASTMAN COMPANY, Concord, N. H.

Do what This Chief Did

A well-known Fire Chief of one of our large cities specified Signal Two Collar Shirt, number 25, for his entire department.

With all the men wearing the same style and kind of shirt the department is now absolutely uniform, and the Chief and his men take pride in their appearance.

This Signal Shirt is long-wearing, dressy and practical. The two collars save wear and washing.

Signal Shirt Company
Racine, Wisconsin

Signal

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Founded 1824 by Jacob Reed

FIREMEN'S UNIFORMS

Thoroughly tailored of especially selected fabrics. Uniforms that look well, wear well and that will give entirely satisfactory service.

Reed's Uniforms are most economical because they represent full value for the amount expended.

Write for catalog and prices.

1424-1426 Chestnut St., Philadelphia, Pa.

CLIFTON SALVAGE COVERS

have all the good points.

- *The most convenient size—12 x 18 feet*
- *The right weight—About 38 pounds*
- *Strong, heavy duck and lapped seams*
- *An absolutely waterproof double coating of a high grade, long life, rubber compound*

Many large Protective Departments use them

Send for our circular

CLIFTON MFG. CO.

Jamaica Plant District Boston, Mass.

Cloth Uniform Caps for Firemen

Made of high quality blue uniform cloth, guaranteed not to fade. Cut on the New York Fire Dept. regulation pattern. Price $2.25, Postage extra. Other grades, $1.75 and up.

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151 Greene St., New York

Save Money for Your Fire Department

BY PURCHASING YOUR

FIRE DEPARTMENT SUPPLIES

FROM

Schwartz Bros., 110 North 8th St., Phila., Pa.

WRITE US FOR OUR SPECIAL PRICES

Our 18 Years' Experience in this business enables us to give you the best at the lowest prices

——AGENTS WANTED——

Regulating Traffic to Speed Up Apparatus

(*Continued from page* 124)

Commerce, whose department is to start some publicity on the new traffic rules when they are issued. He has agreed to make a special display of laws and traffic rules which affect the fire department in connection with material that he is sending out and also to publish same in the weekly publication of the Chamber known as "Current Affairs."

October 20—Since the new traffic rules of the street commissioners are soon to be published, if it has not already been done, it would seem proper to have a representative of the fire department look these rules over to see if any changes have been made which affect the traffic problem of the fire department.

October 22—For the best interest of the fire department the following streets should be restricted to parking on one side only: Bickerstaff Street, between Haviland and Astor Streets; Common Street, between Washington and Tremont Streets; and Warrenton Street, between Washington Street and Shawmut Avenue.

Lieut. William A. Donovan made the following recommendations:

1st, Traffic Suggestions relative to Police: I recommend, if it has not already been attended to, that a communication be forwarded to the police department requesting the general co-operation of the new force as formerly given by the old force; namely, that patrolmen along the route of travel of fire apparatus responding to an alarm, who observe apparatus approaching in the distance take action to clear the street for the safe passage of the apparatus without delay by holding up traffic at intersecting streets. While some of the patrolmen assist greatly, the majority of them offer no co-operation in this respect. The traffic divisions of the police are not included in this complaint.

2nd, The attention of the police should be directed to prompt establishment of fire lines at fire locations. Lines at a specified distance from the scene of fire extinguishing operations should be established immediately by the police, thereby eliminating the delay to companies caused by the obstruction of pedestrians crowding about near the entrances to the building involved in the fire. The police have become a little lax in this respect, but a written reminder will doubless check them up and achieve the desired result.

Suggestions as to Police Details at Fires

The traffic chief made the following suggestions under the heading "Police Details at Fires": The rule under which the police are working at fires at present, Rule No. 46, is in part as follows: "It is the duty of a police officer in command at the beginning of a fire to ascertain from the fire department officer in charge of the firemen the area which he desires cleared in order that the work of the fire department may not be obstructed." With the new state law in force it would seem that it is not necessary for police officers to wait for instructions from the chief at a fire. I have talked this matter over with a number of police officials and with their ideas in mind would make the following suggestion: That the Police Commissioner be requested to have the police officers carry out the following procedure at all fires: The first officer arriving to remain in front of the building where the fire occurs. The second and third officers to go respectively to points at least 600 feet on each side of the fire and stop all vehicular traffic or divert it if possible to the nearest intersecting street. This method would keep vehicles from being in the way of the fire apparatus in case of a second alarm being sounded.

As a result Section 4, Rule 46, of the Rules and Regulations of the Boston Police Department, was amended by striking out the whole of said section and inserting in place thereof, the following new section:

"It shall be the duty of the first police officer who arrives at a fire to take his position in front of the building or as near as possible to the front of the burning building or buildings. Fire lines will be established at least 600 feet distant from the burning building or buildings and the second and third patrolmen arriving at the scene of the fire will take positions 600 feet from the fire, one on the right side and one on the left side. In cases of necessity, this area may be extended to include other streets in the immediate vicinity of the building or buildings on fire.

"From the area designated the police shall remove all vehicles and all persons not members of the Fire, Protective, or Police Departments, except members of the City Council wearing their badges exposed and other persons wearing exposed badges or permits issued for the current year by the Fire Department. The lines thus established shall be maintained, contracted, or extended as needed by the Fire Department. When it may be reasonably supposed that a person applying for admission is a clergyman whose services may be needed within the fire lines, he is to be passed by the police."

Traffic Signals for Fire Apparatus

November 9—Have furnished O. Dowd, who has charge of preparing material for the Year Book of the City of Boston, with pictures of traffic conditions affecting the fire department which he plans to use in connection with an article on traffic conditions in Boston.

November 17—A traffic signal is needed at the corner of Atlantic Avenue and Congress Street to notify the traffic officer at this point of the movement of fire apparatus. This junction is one of the most congested points in the city for heavy teaming and trucking and it is impossible for the officer to hear the apparatus even as near as Congress Street and Dorchester Avenue or Dewey Square because of the noise from the trains on the elevated structure and of the trucks and teams which pass this point. This was approved by Supt. George L. Fickett, of the fire alarm office, and will shortly be placed in operation.

Painting of Fire Hydrants

December 21—Painting of Corners and Hydrants. The work of painting white lines 20 feet from corners and 10 feet from hydrants has been completed as far as we can go this year and good results have been obtained from this work. Corners and hydrants where marked are being kept much clearer of automobiles than they have been in the past and the police are checking up on violations where necessary. The results would indicate that further work in this line should be done, but it should be more permanent than paint ever can be. The suggestion is therefore made that the Public Works Department be asked if it would not be possible in making future repairs on streets to have a line of white concrete set in at points 20 feet from corners and 10 feet from hydrants, such lines to be about 4 inches wide and 3 feet long. This would provide a permanent marking which would be uniform all over the city and would call attention to the fact that these points must be kept clear at all times.

December 21—In as much as the street commissioners are at various times making new rules regarding traffic which affect the fire department and are also revising old rules and holding hearings on same without knowledge of the fire department, would suggest that the street commissioners be requested to notify the fire department of all hearings which are held concerning traffic rules, so that a representative of the fire department may attend such hearings.

December 28—Since the parking of cars in the vicinity of theatres is one of the most serious problems that the fire department has to deal with, would suggest that it would be of assistance if the managers of theatres and motion picture houses could be induced to print in their programs or show on their screens the following notice: "Patrons of this theatre are requested to assist the fire department by strictly observing the traffic rules which prohibit the parking of cars within 10 feet of hydrants or 20 feet of street corners."

December 29—A traffic gong at the corner of Washington and Northampton Streets would be of great benefit to Engine 23 in crossing this point as the apparatus is continually blocked by street cars which turn at this corner. Although there is no traffic officer stationed at this point there is a Boston Elevated Railway man on duty from 6 a. m. until midnight there and he could be of assistance in holding up traffic if warned of the approach of apparatus. This suggestion was approved and adopted.

The following communication was received by the Traffic Chief from Lieut. William J. Marshall, of Ladder Company No. 21: "According to General Order No. 42, Series of 1925, signed by the Fire Commissioner, the members of the department are instructed to call to your attention conditions which are liable to cause accidents in responding to fires. At 7:42 p. m., October 25, an alarm was received from Box 626 to which Ladder 21 responded. It has been a strict rule at the fire station, corner of Byron and Saratoga Streets, East Boston, to send a man out to warn traffic before the apparatus leaves the house. While obeying this rule Hoseman Joseph Canavan signalled with outstretched arms for automobile with license number 507927 to stop, but the driver of the machine kept on coming and nearly struck Hoseman Canavan. I believe the driver should be cautioned to be more careful in the future. I would suggest that a pedestal similar to a "silent policeman" be placed 150 feet on either side of the fire station in the middle of the street, said pedestals to carry signs consisting of red dotted glass letters with the words FIRE HOUSE—DANGER so that when the headlights of automobiles shine upon it the letters will show clearly in red as if illuminated.

In addition to the portions of state law already quoted the

following traffic rules which affect the fire department are now in force in the City of Boston:

VEHICLES IN MOTION

Section 1. A vehicle, except when passing a vehicle ahead, shall keep to the right and as near the righthand curb as possible.
Section 2. A vehicle meeting another vehicle shall pass on the right.
Section 3. A vehicle overtaking another vehicle shall, in passing, keep to the left, but it shall not leave the line on the right unless there is a clear way of at least 300 feet in advance on the left.
Section 4. A vehicle in turning to the right into another street shall keep as near to the righthand curb as possible.

RIGHT OF WAY

Section 1. Police, Fire Department, and Protective Department apparatus, emergency repair wagons of public service corporations, United States mail vehicles, and ambulances shall have the right of way in any street and through any procession.

No vehicle shall stop in such a way as to obstruct any street or crossing.

Where streets connect with but do not cross other streets, vehicles shall not stand opposite the ends of such connecting streets.

No vehicle shall stop or stand within the intersection of any street, nor within 20 feet of a street corner, nor within 10 feet of a hydrant.

Drivers of vehicles shall not stop nor stand the same in front of nor within 50 feet of the center point of the front wall of a fire station on either side of the street on which the station is located except to let off or take on passengers or to receive or deliver goods or merchandise.

A new traffic idea for Boston that will be tried out by suggestion of the committee on municipal and metropolitan affairs of the Chamber of Commerce is what is known as the "Boulevard Stop." Under this plan which is reported to be in operation in Chicago, Kansas City, St. Louis, Detroit, New Orleans, and Los Angeles all traffic from side streets comes to a stop before entering a boulevard. Of first consideration for such a regulation in Massachusetts is the present state law which prescribes a right of way for traffic approaching on the right. E. Mark Sullivan, corporation counsel for the city of Boston, has given an opinion that the plan can be operated without interfering with existing laws. The scheme will be tried out first on Shawmut Avenue.

President Miner H. Paddock, Jr., of the Boston Motor Club, is investigating the possibility of forming an auxiliary traffic force for Boston which would not have the full powers of the police, but which could be employed as directional aids at points not covered by policemen. The plan is to furnish distinctively uniformed men under the control of the police department, the expense of maintenance to be borne by the motor club.

An effort to secure the adoption of uniform traffic regulations throughout the country is being made by the American Automobile Association and satisfactory results are already reported in Michigan and Washington.

The committee on municipal and metropolitan affairs of the Boston Chamber of Commerce has prepared for distribution a map of the city and copies of the new parking regulations recently issued by the board of street commissioners.

Mayor Malcolm E. Nichols, of Boston, has suggested imposing a tax of from $5 to $10 a year upon automobile owners for the privilege of being able to park their cars in the city.

Suggestions by Chamber of Commerce

The following notices were published in "Current Affairs," the weekly publication of the Chamber of Commerce:

GET OUT OF THE WAY OF FIRE APPARATUS

The 1925 Legislature passed an important statewide traffic rule which does not seem to have been given much attention.

We present it to Chamber members with the advice that it be carefully observed.

It is that upon the approach of any fire apparatus, every driver shall immediately drive the vehicle as far as possible toward the right-hand curb and keep it at a standstill until the apparatus has passed. According to the law, no vehicle should be in motion within three hundred feet of any fire apparatus. Furthermore, a vehicle should not be driven or even parked within six hundred feet of a fire.

DON'T PARK OPPOSITE DEAD-END STREETS

May we call your attention to a parking rule of the Street Commissioners that is little known and widely disobeyed but of considerable importance? It is:

"Where streets connect with but do not cross other streets, vehicles shall not stand opposite the ends of such connecting streets."

In other words, don't park opposite any of the innumerable "dead-end" streets with which Boston is cursed.

This rule is particularly necessary to permit the apparatus of the Fire Department to make turns to and from these dead-end streets.

Use of Traffic Gongs

Superintendent Fickett, of the fire alarm office, realizing the seriousness of the traffic problem, has made every effort possible to place traffic gongs and signals where necessary and at the present time he has established warning devices at thirty-one important points.

These warning signals are either sirens or fourteen inch gongs which notify the traffic officer on duty of the approach of apparatus. The Sterling electric siren has been found to be effective and several of these instruments are now in use in Boston.

Some Recent Newspaper Articles

The hazard of existing traffic conditions is well brought out and emphasized by the following clippings from Boston newspapers of recent dates:

From the Boston Globe:

TRAFFIC BLOCKS FIRE APPARATUS

Held Up in Tangle at Summer and Lincoln—Sprinklers Fortunately Confine Blaze on Fourth Floor

Firemen were convinced yesterday that the parking problem has become of secondary consideration when, owing to the heavy traffic, it was found impossible to get fire apparatus to the building at 140-144 Essex st., where a fire was burning on the fourth floor.

The crew of Engine 7 and Protective 1, responded to an automatic alarm, succeeded in getting their machines fairly near the building, but the apparatus that answered a bell alarm from Box 1431, at Summer and Lincoln sts., was involved into a traffic tangle that took the combined efforts of half a dozen police officers, Deputy Chief Henry Power and District Chiefs Victor Richer and James W. Mahoney of the Fire Department, to straighten out.

Trucks, both motor and horse drawn, as well as numbers of pleasure cars, rolled through Lincoln and Essex and adjacent streets, after the first fire companies reached this corner, with the result that when the succeeding fire companies arrived they were blocked out of the picture entirely.

This was the finishing touch to one of the wildest rides that the members of the various companies have had in many months.

On a ride from the Old State House through Washington, Summer and Lincoln sts., the drivers of an engine company are compelled to come nearly to a dead stop a dozen times in order to avoid hitting some machine driven directly across the path of the apparatus. Busy corners are cleared by traffic policemen, but the trouble for the firemen comes in the side streets, into which drivers turn for short cuts.

The fire was in a storeroom of S. Rosenberg & Son, shoe dealers. The loss was estimated at $300, the fire being confined to the corner of the room by the automatic sprinklers.

From the Boston American:

PARKED AUTOS BLOCK FIREMEN

Hampered by two lines of parked autos along Idlewild st., Allston, firemen had a stiff battle last night to subdue a lively blaze on the fifth floor of the Aurora apartment building on the corner of Commonwealth ave.

Ladder 14 had to halt between the parked cars and shoot an 85-foot ladder over the machines on one side of the road, to reach the blazing apartment.

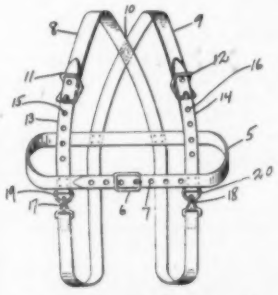
Roused by the janitress, Mrs. Margaret L. Martin, fifty tenants fled to the street, through smoke filled halls.

The fire started from an undetermined cause in the apartment of Allen Moore on the top floor of the five-story building. Rapid work by firemen in breaking windows and the skylight confined the blaze to the apartment. Damage was about $1,500.

The Moores were out during the fire. When they returned Mrs. Moore fainted.

New Life Saving Harness

A new Life-Saving Harness has been invented by T. S. Woods, Fresno, Cal., the advantages claimed for which is that it allows the rescuer wearing it full liberty of both hands and feet, when carrying a prostrated person on his back. It also enables the wearer to crawl on hands and knees in a smoke filled room,



Details of New Life Saving Harness.

strap the rescued person on his back, and reach an opening without the necessity of rising. It is claimed with the device a small man can rescue a larger one with ease.

The adjustment of the harness can be accomplished to an unconscious person in about a minute. The harness can be used on squad wagons or for truck companies.

The harness has been patented by Mr. Woods.

Olean, N. Y., Has Had Few Chiefs—During the past thirty-two years, Olean, N. Y. has only had two fire chiefs. Chief Rodgers who heads the department at present was appointed in 1910.

EDDY
Fire Hydrants

re given preference by so many fire protection and water works men because they know that more than half a century of experience go into their manufacture and they embody valuable and exclusive features.

Write for the Facts

EDDY VALVE CO.
Waterford, N. Y.
James B. Clow & Sons, Chicago Agents

Novo Acid Jars & Holders

of every description, stronger than lead and none-corrosive. Used by departments throughout the country.

Chemical Tanks and Lally Quick Opening and Self-packing Top for Chemical Tanks

Lally Improved Fire Hose Couplings, Fire Extinguishers and Charges, Fire Hose and Fire Department Supplies in General

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MANUFACTURERS OF
High Grade Uniforms

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SO. JUNIPER AND VINE STS.
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KENOSHA
All New Models
6 Cylinder Engines Only

300—400—450—500—600—750—1000 gallon capacity. Four wheel or rear wheel drive. Pumpers, Aerials, Tractors, Ladder and Chemical Trucks.

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Siren with Storm Hood

1. Double-tone, and of greatest carrying power.
2. Ball bearings throughout.
3. Accurately machined and balanced.

30 Days' Free Trial
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MAXIM City Service TRUCKS

with Maxim-Built Ladders

are unsurpassed for design, completeness of equipment and sturdiness of construction. Like all Maxim apparatus and equipment, they are built "Just a Little Better All Around."

MAXIM MOTOR COMPANY, Middleboro, Mass.
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New Jaeger Portable Pumper
for Fords

provides adequate fire protection at a fraction of the cost of big apparatus, and is ideal for small towns and communities.

Send for complete details.

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THINK OF "PIRSCH"
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The Schavoir Gas Mask

The latest and most advanced development in gas masks. Fire officials everywhere should get the facts.

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Schavoir Rubber Co. Stamford, Conn.

The **BURRELL**
All Service
GAS MASK
provides

Complete Protection in
Carbon Monoxide Gas, Smoke or Fumes

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MINE SAFETY APPLIANCES CO., Pittsburgh, Pa.

Waterous Dependable

ROTARY PUMPS
FIRE HYDRANTS

Agencies in Principal Cities

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WATEROUS FIRE ENGINE WORKS
INCORPORATED
St. Paul, Minnesota

Compressed Air Fire Whistles, Fire Alarm Boxes, Gongs, Etc.

Complete Systems Installed

Estimates Cheerfully Given

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Stonington, Conn.

The Perfect Satisfaction and economy of wearing the

"FAMOUS KALAMAZOO"

Firemen's Uniforms has been proven by thousands of firemen. Catalog F501 will tell you all about them.

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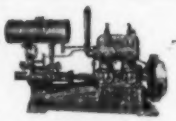

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Invincible and Callahan Nozzles

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on all new equipment you are planning to purchase for your department during the year.

Just run down the list of equipment, fill out the coupon below, and mail it to us with the numbers that indicate the equipment in which you are interested.

We will then notify reliable manufacturers of your interest in such equipment and request that without cost to you or any obligation they send you the information you desire.
They will gladly do this. So go to it! Ask for what you want. This page is for your convenience. Use it now—and whenever you decide to buy new equipment of any kind.

Here's Your List of Fire Protection Equipment and Supplies

1 Acid Siphons.
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4 Aerial Ladders, Detachable.
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6 Alarms, Siren, Electric.
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9 Alarms, Thermostatic.
10 Asbestos Clothing.
11 Badges, Insignias, Buttons, etc.
12 Banners, Trumpets, etc.
13 Battery Jars.
14 Battery Zincs for Fire Alarm Batteries.
15 Bells, Fire Alarm, Municipal.
16 Body Equipments.
17 Boxes, Gongs, Reels, Registers, Fire Alarm.
18 Brakes, Air.
19 Brake Linings.
20 Brooms, Fire.
21 Building Materials, Fire Retardant.
22 Cable & Wire, Fire Alarm.
23 Caps, Firemens.
24 Chains, Non-Skid, Fire Apparatus.
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26 Chemical Engines and Tanks.
27 City Service Trucks.
28 Coats & Suits, Firemen's Quick Hitch.
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30 Cutting & Welding Equipment, Blow Torch.
31 Cutting & Welding Equipment, Electric.
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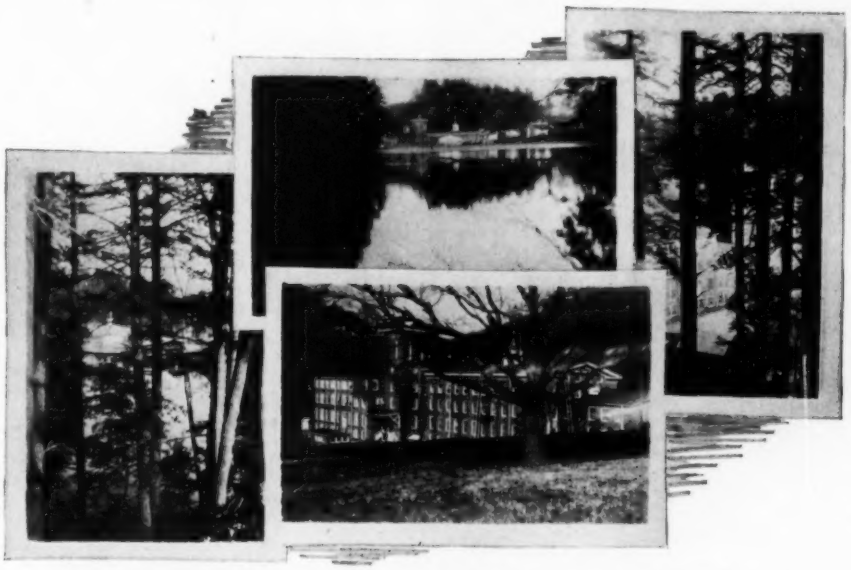

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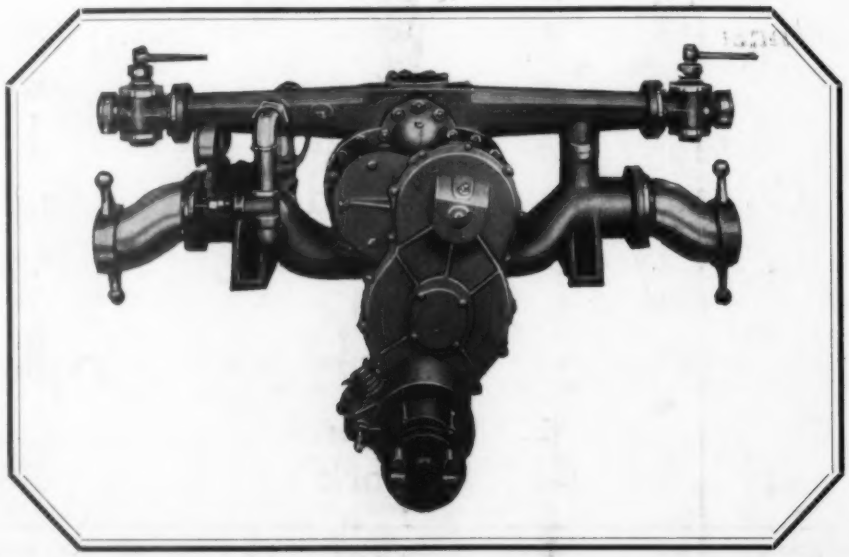

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